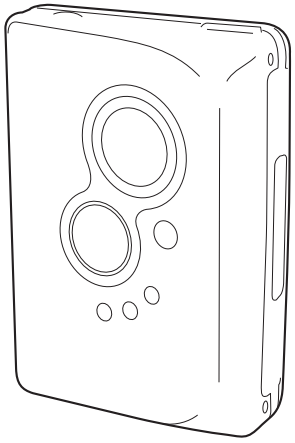
# WM-FX522

# SERVICE MANUAL

*AEP Model*

**Ver 1.0 2003.01**



| | |
|---|---|
| Model Name Using Similar Mechanism | WM-FX521 |
| Tape Transport Mechanism Type | MT-WMEX505-162 |

## SPECIFICATIONS

### Radio section

**Frequency range**
FM: 87.5 - 108 MHz
AM: 531 - 1 602 kHz

### Tape section

**Frequency response**
Playback: 40 - 15 000 Hz

**Output**
Headphones (🎧) jack
Load impedance 8 - 300 Ω

### General

**Power requirements**
1.5 V
One R6 (size AA) battery

**Dimensions (w/h/d)**
Approx. 77.0 × 108.4 × 28.7 mm, excl. projecting parts and controls

**Mass**
Approx. 165 g (main unit only)

**Supplied accessories**
• Stereo headphones/earphones with remote control or stereo headphones/earphones (1)

Design and specifications are subject to change without notice.

**Battery life* (Approx. hours)**

| | Tape playback | Radio reception |
|---|---|---|
| Sony alkaline LR6 (SG)** | 35 | 65 |

* Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association). (Using a Sony HF series cassette tape)
**When using a Sony LR6 (SG) "STAMINA" alkaline dry battery (produced in Japan).

### Note

• The battery life may be shorter depending on the operating condition, the surrounding temperature and battery type.

## RADIO CASSETTE PLAYER

9-874-226-01
2003A0500-1
© 2003.01

**Sony Corporation**
**Personal Audio Company**
**Published by Sony Engineering Corporation**

SONY

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### Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

### Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

# SECTION 1
# SERVICING NOTES

This set detects the rotation of the idler gear (A) (side S) using the PH701 (photo reflector). The PH701 is mounted on the MAIN board, therefore the idler gear (A) (side S) cannot be detected with the MAIN board removed. As a result, the motor (M901) cannot be controlled, causing malfunction.
Further, the DIRECTION switch (S703) is also mounted on the MAIN board, and with the board removed, the mechanism position cannot be detected and the operation is not changed over.
Therefor, when the voltage check is executed with the MAIN board removed, follow the procedure provided below.

1. Setting
(1) Refer to "3. DISASSEMBLY", and remove the MAIN board.
(2) Connect the MAIN board to the motor (M901) and the plunger (PM901) using jumper wires. These can be connected easily with the use of the extension tool (Part No. 1-769-143-11) (ten in one set).
(3) Short the TAPE DETECT switch (S901-1) terminals and the ATS switch (S901-2) terminals.
(4) Connect the AF oscillator to the TP40 (PHOTO IN) and the TP2 (GND).
(5) Supply 1.3 V to the battery terminals using the regulated power supply.

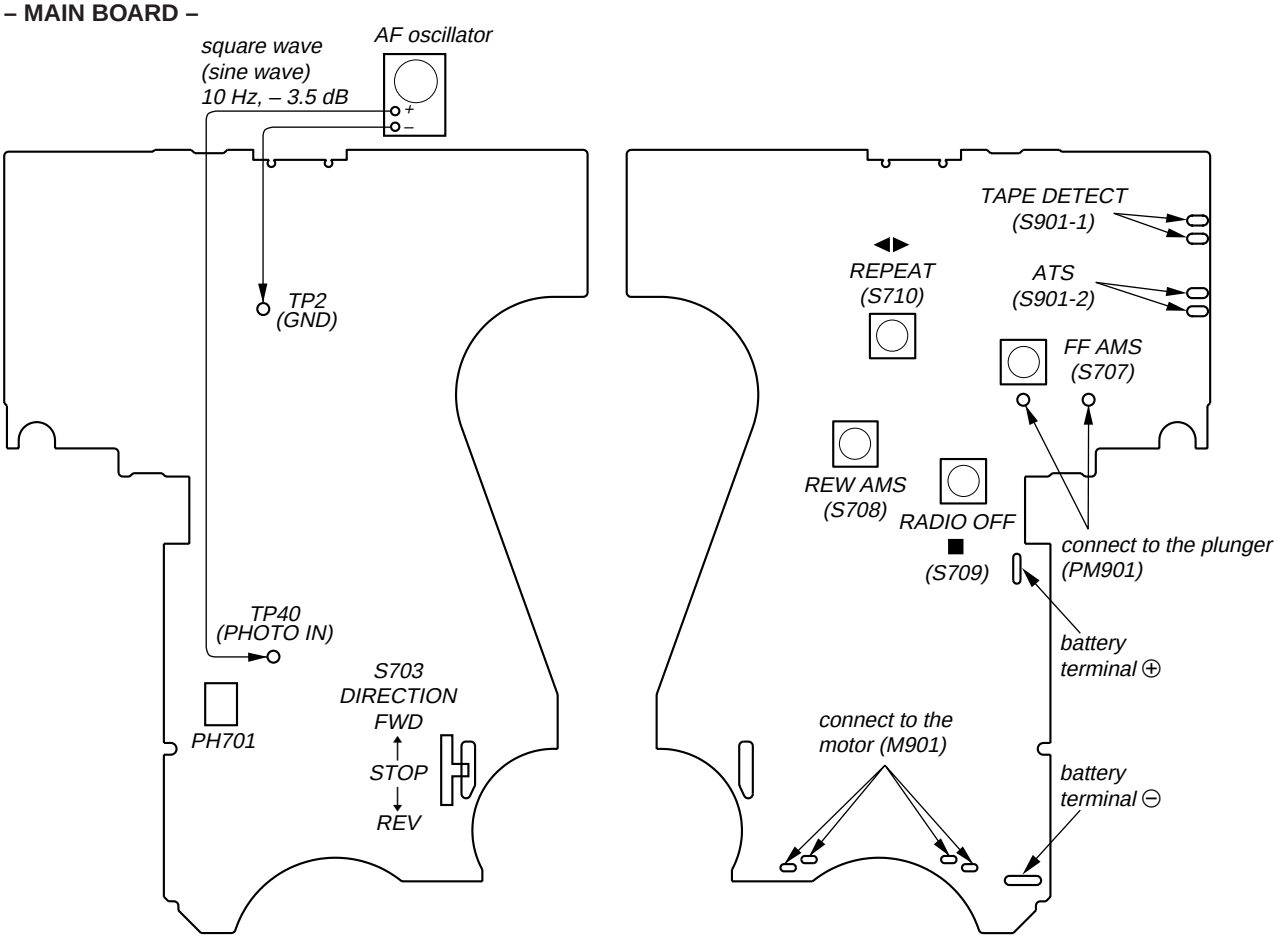
2. Preset state
To set the PLAY, FF, REW modes, the preset state must be set.
(1) Check that the slider (NRA) and the DIRECTION switch (S1) are set to the center position. If not, set the preset state as follow.
(2) Move the DIRECTION switch (S703) to the side, which the slider (NRA) is facing.
(3) The slider (NRA) will move when the regulated power supply switch is set to OFF once and then set to ON. Move the DIRECTION switch (S703) according to this timing and set to the center position.

3. FF, REW modes
(1) Check that the preset state is set.
(2) Input the square wave or sine wave to the TP40 (PHOTO IN) and the TP2 (GND).
(3) Press the [RADIO OFF■] button (S709) to set the STOP mode.
(4) Press the [FF AMS] button (S707) or the [REW AMS] button (S708).

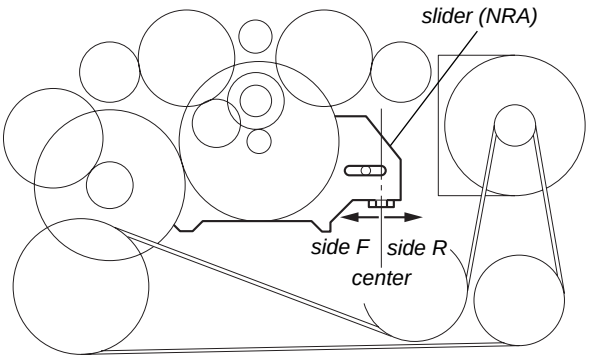
4. PLAY mode
(1) Check that the preset state is set.
(2) Input the square wave or sine wave to the TP40 (PHOTO IN) and the TP2 (GND).
(3) Press the [RADIO OFF■] button (S709) to set the STOP mode.
(4) Press the [◀▶REPEAT] button (S710) will move the slider (NRA) once towards the side R and then to the side F. Move the DIRECTION switch (S703) according to this timing will set the PLAY mode (side F). Press the [◀▶ REPEAT] button (S710) another time and move the DIRECTION switch (S703) according to the movement of the slider (NRA) will set the PLAY (R mode).

**Note 1:** If the above fails, perform from preset again.
**Note 2:** Use the [◀▶REPEAT] (S710), [RADIO OFF■] (S709), [FF AMS] (S707), and [REW AMS] (S708) buttons on the remote controller as much as possible. If no remote controller, do not touch the buttons with your hands, but using a stick with a round tip.
**Note 3:** When using headphones, the timing for move the DIRECTION switch (S703) can be determined from the beep sound.

**– MAIN BOARD –**

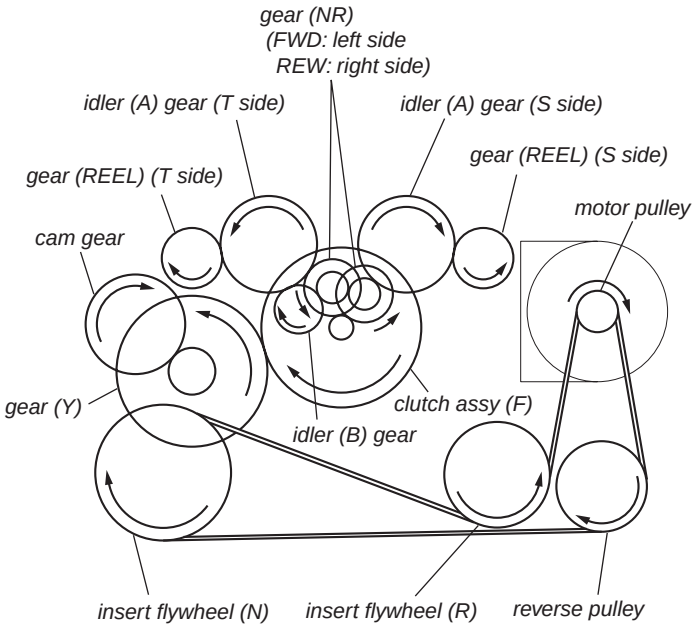


## SLIDER (NRA)

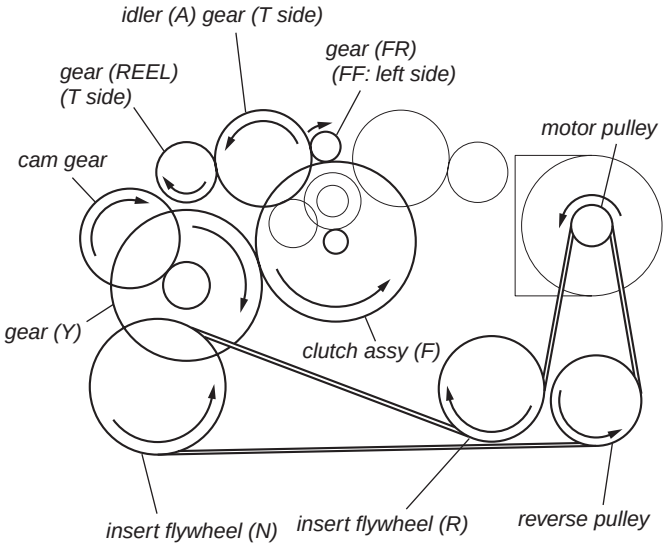



## Rotation system

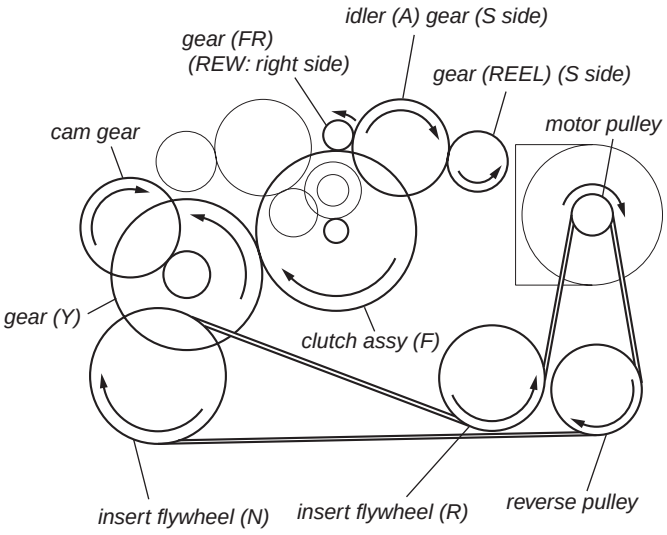
Rotation system during PLAY




Rotation system during FF



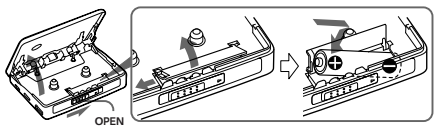

Rotation system during REW



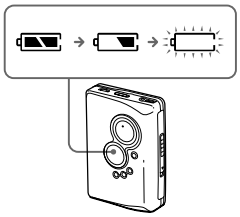
# SECTION 2
# GENERAL

This section is extracted from instruction manual.

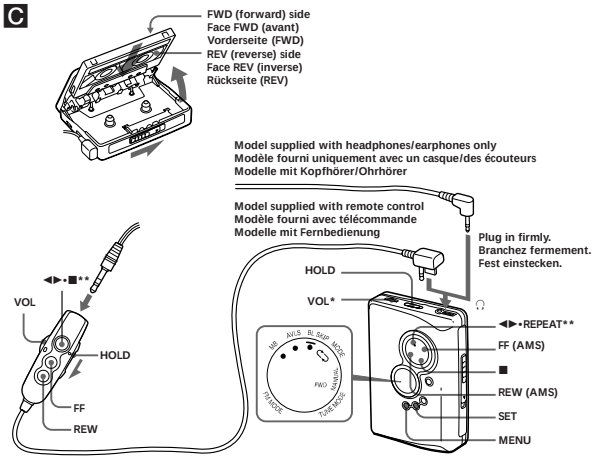
**A**




**B**



**C**

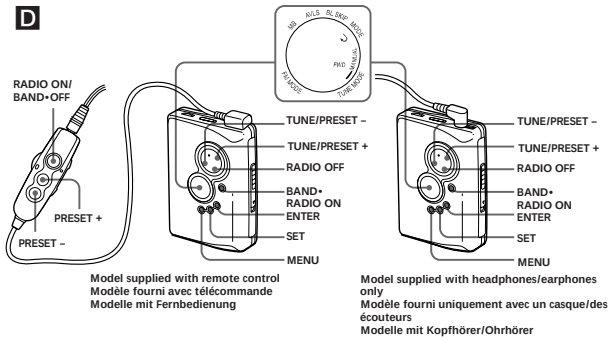



* There is a tactile dot beside VOL on the main unit to show the direction to turn up the volume.
** The button has a tactile dot.

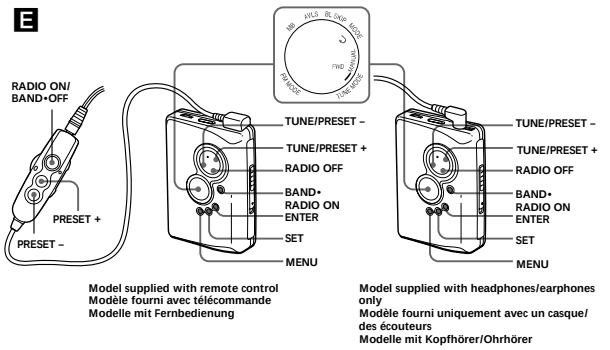
* Un point tactile à côté de VOL sur l'appareil principal indique le sens de rotation du bouton de volume.
** Le bouton comporte un point en relief.

* Am Hauptgerät befindet sich ein fühlbarer Punkt neben VOL. Dieser gibt die Richtung an, in der man die Lautstärke erhöht.
** An dieser Taste befindet sich ein fühlbarer Punkt.

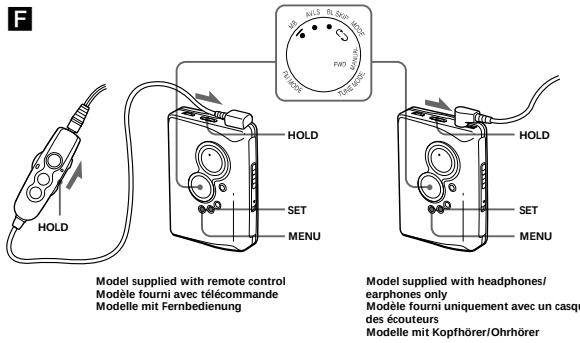
**D**




**E**




**F**



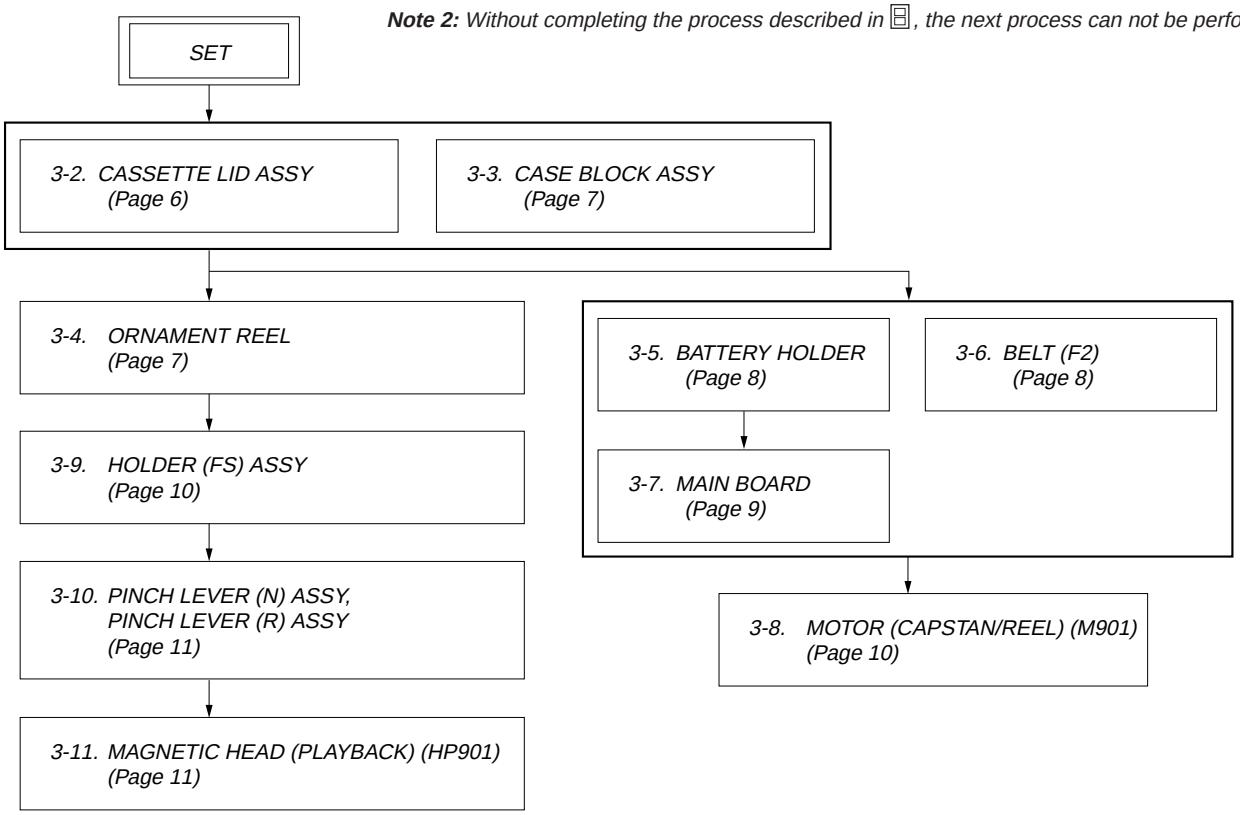
# SECTION 3
# DISASSEMBLY

• This set can be disassembled in the order shown below.

## 3-1. DISASSEMBLY FLOW

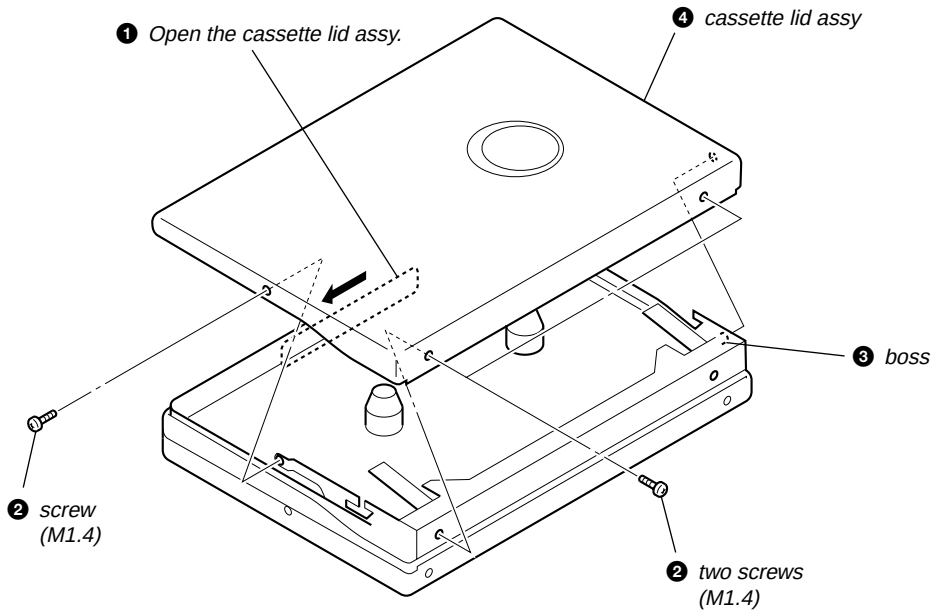
***Note 1:*** *The process described in* ▣ *can be performed in any order.*

***Note 2:*** *Without completing the process described in* ▣*, the next process can not be performed.*

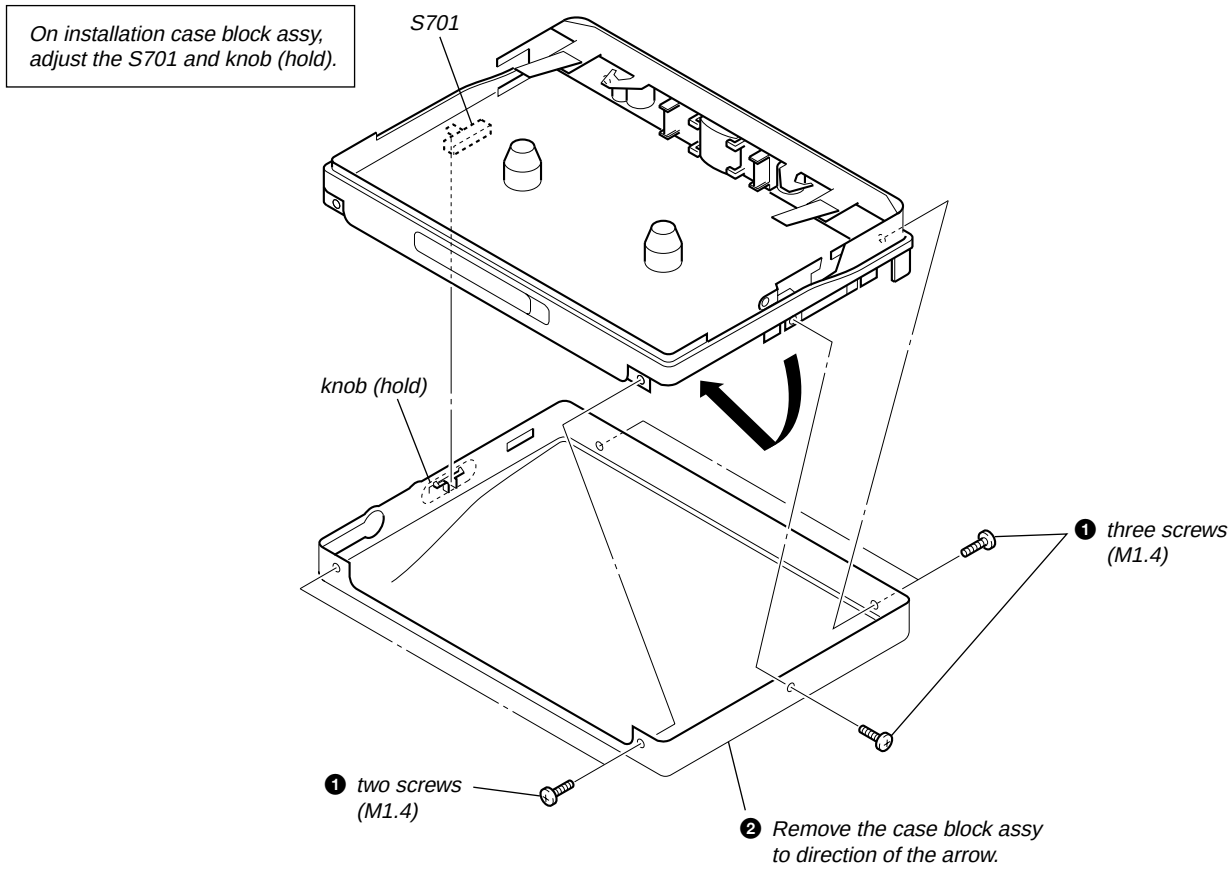

SET
3-2. CASSETTE LID ASSY (Page 6)
3-3. CASE BLOCK ASSY (Page 7)
3-4. ORNAMENT REEL (Page 7)
3-5. BATTERY HOLDER (Page 8)
3-6. BELT (F2) (Page 8)
3-7. MAIN BOARD (Page 9)
3-8. MOTOR (CAPSTAN/REEL) (M901) (Page 10)
3-9. HOLDER (FS) ASSY (Page 10)
3-10. PINCH LEVER (N) ASSY, PINCH LEVER (R) ASSY (Page 11)
3-11. MAGNETIC HEAD (PLAYBACK) (HP901) (Page 11)

**Note:** Follow the disassembly procedure in the numerical order given.

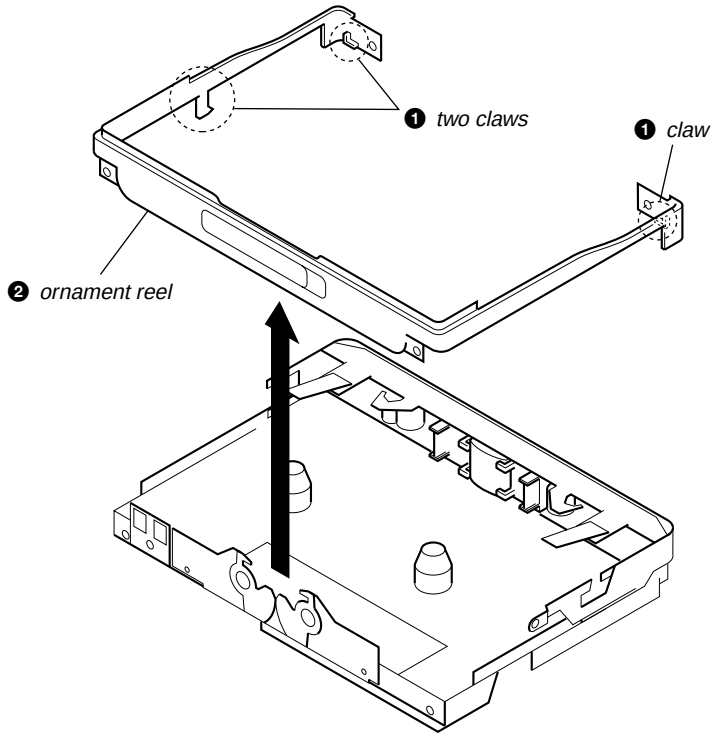
## 3-2. CASSETTE LID ASSY



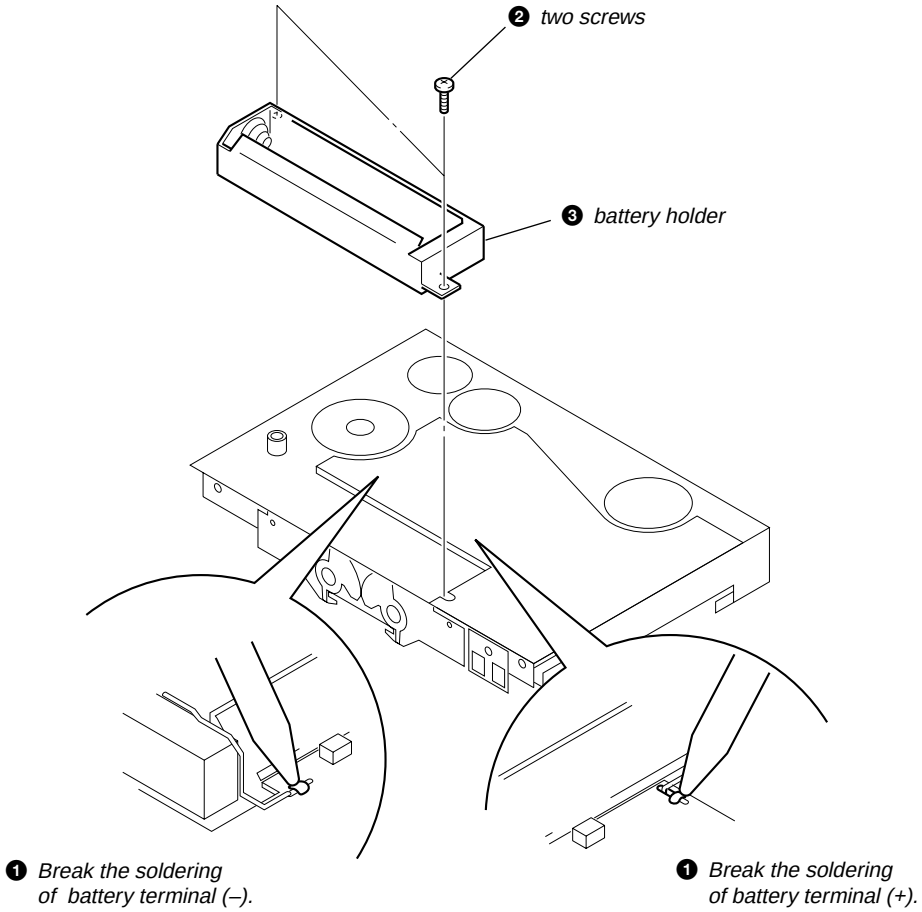
### 3-3. CASE BLOCK ASSY


On installation case block assy, adjust the S701 and knob (hold).
S701
knob (hold)
❶ three screws (M1.4)
❶ two screws (M1.4)
❷ Remove the case block assy to direction of the arrow.

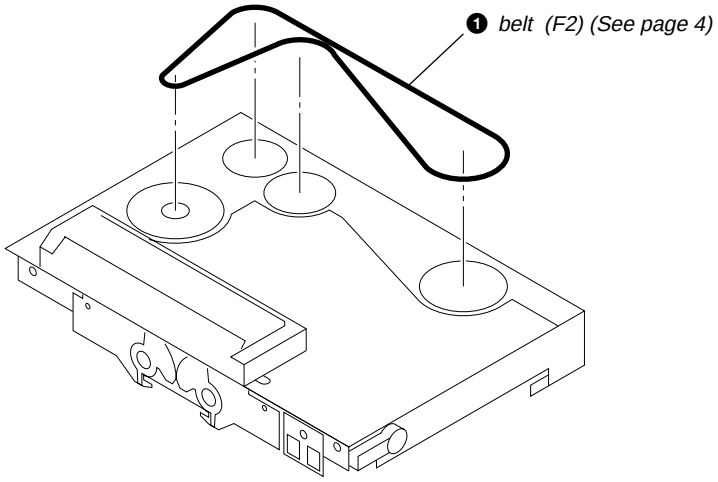
### 3-4. ORNAMENT REEL



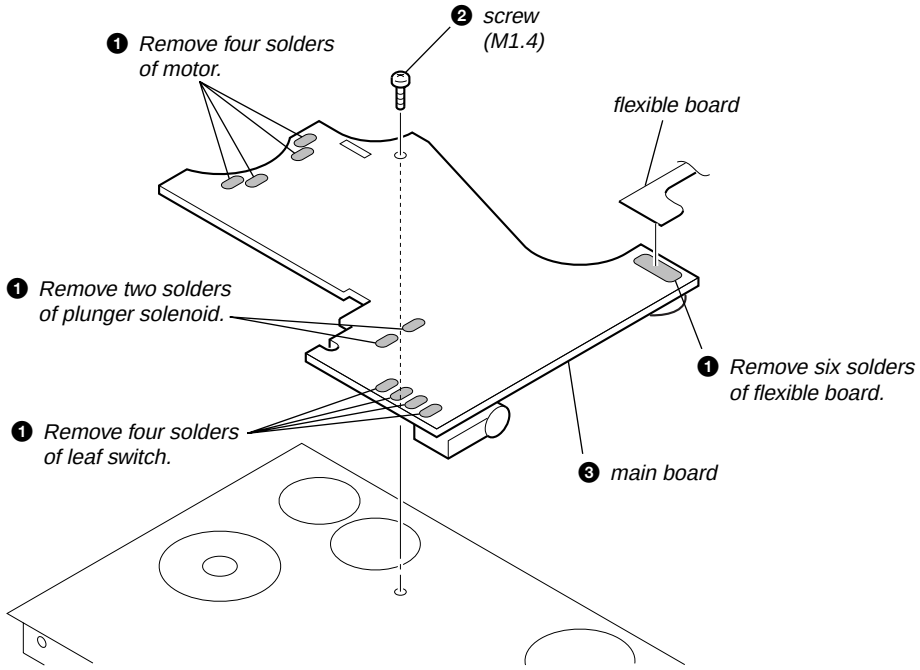
### 3-5. BATTERY HOLDER




### 3-6. BELT (F2)

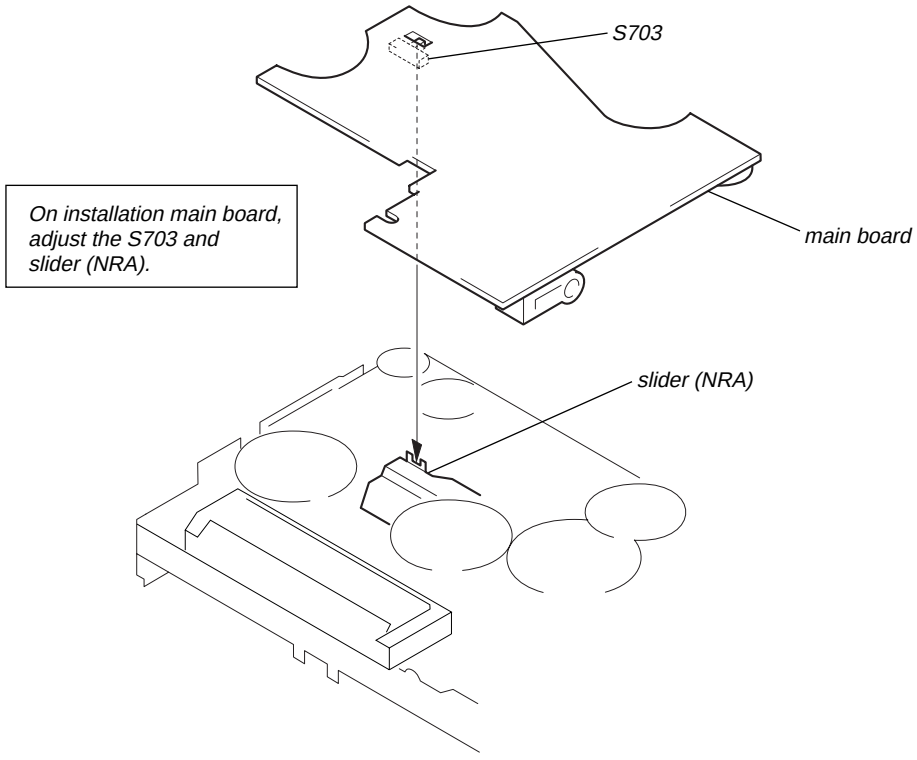


### 3-7. MAIN BOARD

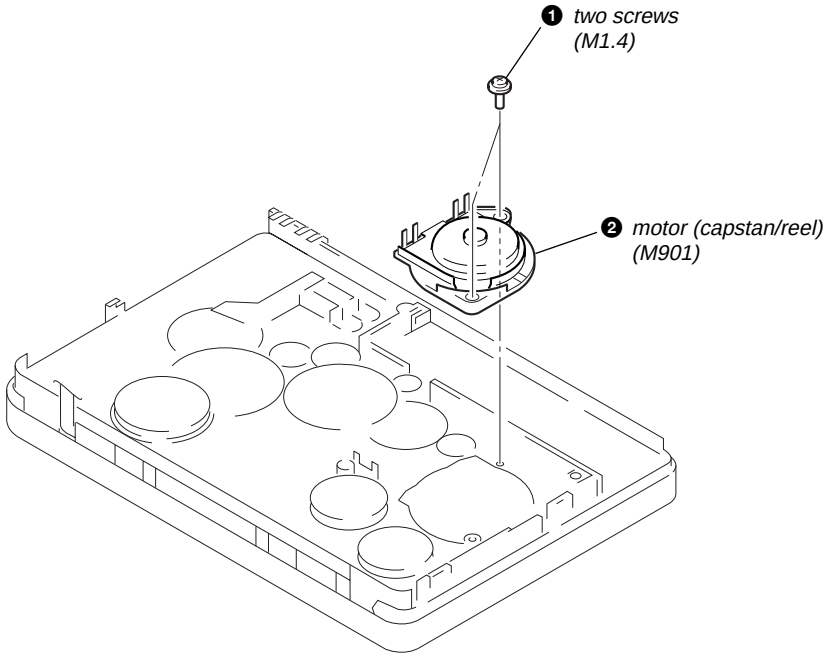



**NOTE FOR INSTALLATION**

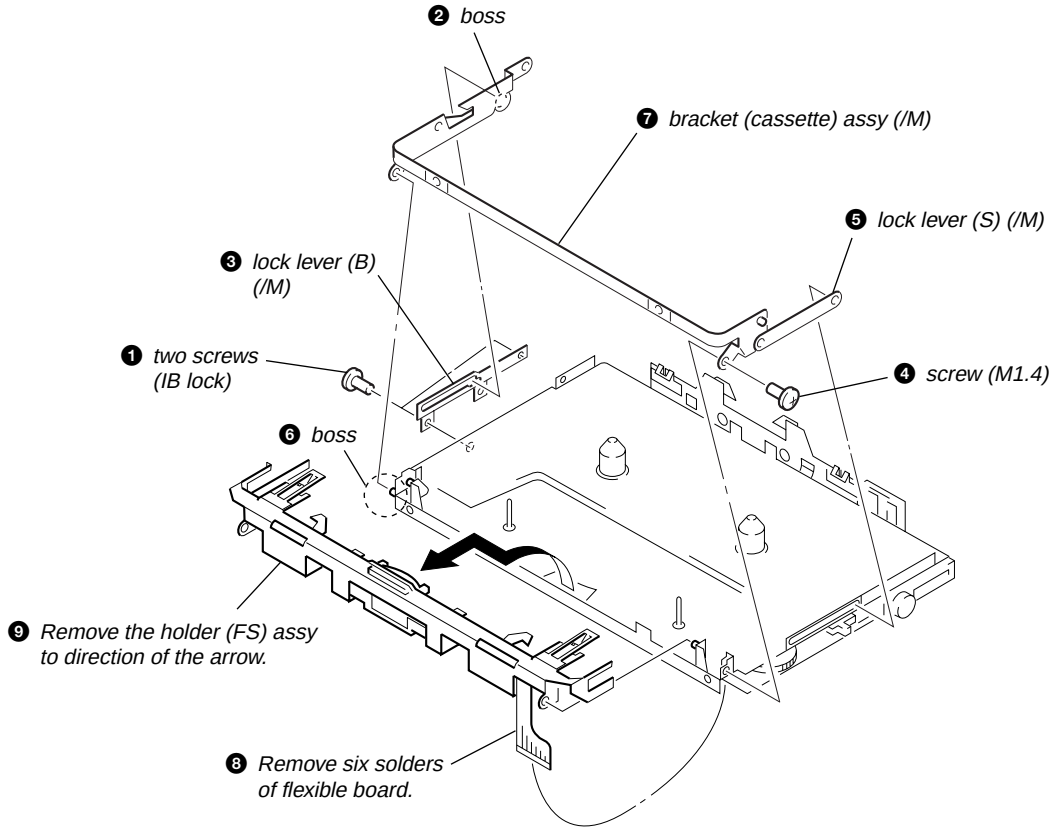
**• MAIN BOARD**



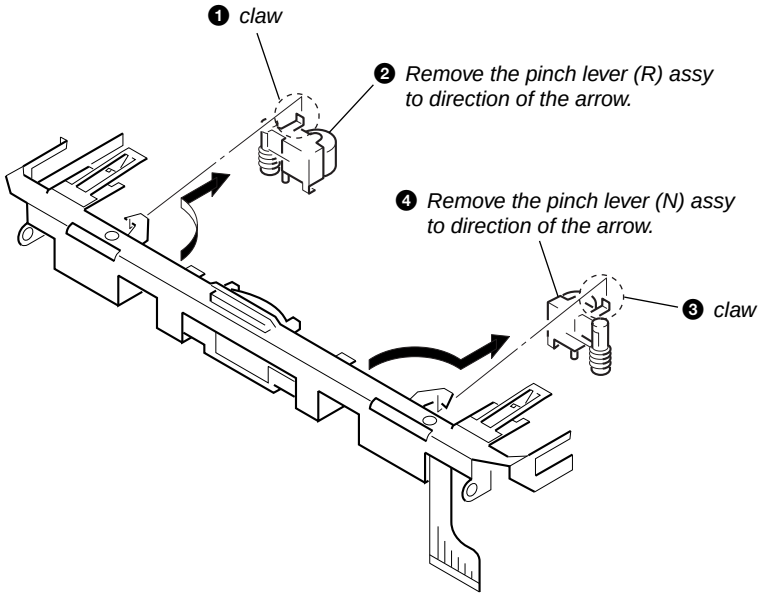
### 3-8. MOTOR (CAPSTAN/REEL) (M901)



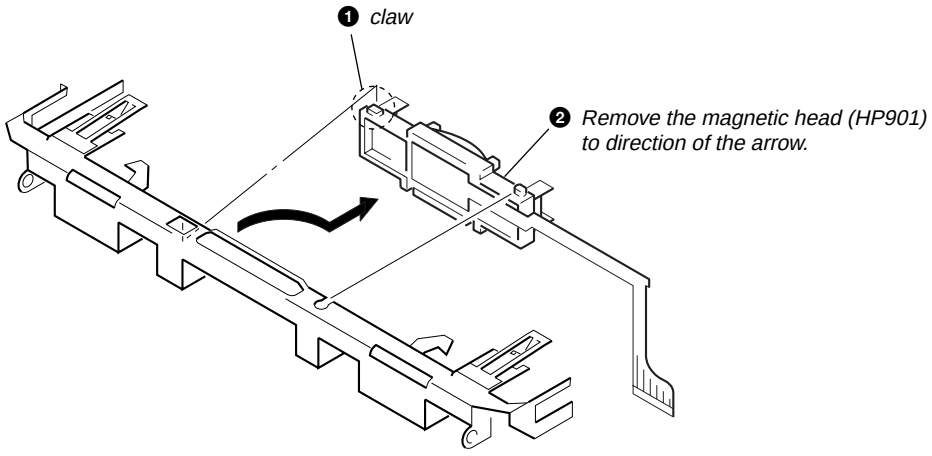

### 3-9. HOLDER (FS) ASSY



### 3-10. PINCH LEVER (N) ASSY, PINCH LEVER (R) ASSY


❶ claw
❷ Remove the pinch lever (R) assy to direction of the arrow.
❹ Remove the pinch lever (N) assy to direction of the arrow.
❸ claw

### 3-11. MAGNETIC HEAD (PLAYBACK) (HP901)



# SECTION 4
# MECHANICAL ADJUSTMENTS

### PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   playback head, pinch roller
   rubber belts, capstan
2. Demagnetize the playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. The adjustments should be performed with the rated power supply voltage (1.3 V) unless otherwise noted.

### TORQUE MEASUREMENT

| Mode | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 1.57 – 2.45 mN•m<br>(16 – 25 g•cm)<br>(0.23 – 0.34 oz•inch) |
| FWD<br>Back Tension | CQ-102C | 0.049 – 0.147 mN•m<br>(0.5 – 1.5 g•cm)<br>(0.007 – 0.02 oz•inch) |
| REV | CQ-102RC | 1.57 – 2.45 mN•m<br>(16 – 25 g•cm)<br>(0.23 – 0.34 oz•inch) |
| REV<br>Back Tension | CQ-102RC | 0.049 – 0.147 mN•m<br>(0.5 – 1.5 g•cm)<br>(0.007 – 0.02 oz•inch) |
| FF, REW | CQ-201B | more than 4.90 mN•m<br>(more than 50 g•cm)<br>(more than 0.7 oz•inch) |

# SECTION 5
# ELECTRICAL ADJUSTMENTS

### PRECAUTION

1. Specified voltage: 1.3 V (DC)
2. Setting
   MB : OFF
   AVLS : OFF
   BL SKIP : OFF
   MODE : ⟲
   VOLUME : MAX
   HOLD : OFF

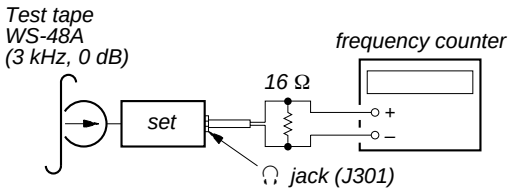
**TAPE DECK SECTION** | 0 dB=0.775 V

### TEST TAPE

| Type | Signal | Used for |
|---|---|---|
| WS-48A | 3 kHz, 0 dB | Tape Speed Adjustment |

### TAPE SPEED ADJUSTMENT

**Setting:**
Function: TAPE




**Procedure:**

1. Playback WS-48A (tape center) in the FWD state.
2. Adjust RV601 so that the frequency counter reading becomes 3,000 Hz.

**Specification Values:** 2,970 to 3,030 Hz

3. Check that deflection of the frequency counter reading between the beginning and the end of tape is within 1.5% (approx.45 Hz).
4. Playback WS-48A (tape center) in the REV state.
   Check that the frequency counter reading is within 2% (approx.60 Hz) of the reading of step 1.

**Adjustment Location:** MAIN BOARD (See page 13)

## TUNER SECTION

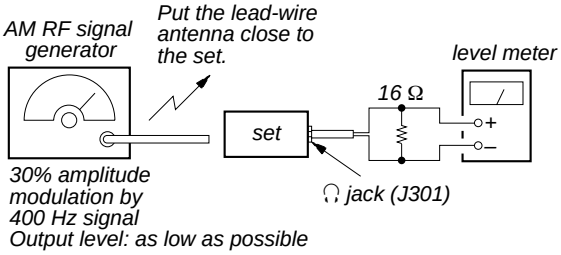
0 dB=1 μV

**[AM]**

**Setting:**

function : RADIO

BAND button : AM

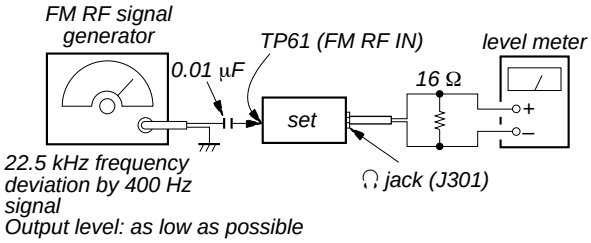

AM RF signal generator
Put the lead-wire antenna close to the set.
level meter
16 Ω
set
jack (J301)
30% amplitude modulation by 400 Hz signal
Output level: as low as possible

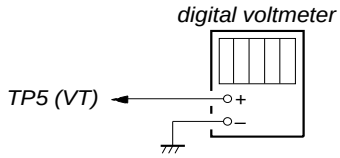
**[FM]**

**Setting:**

function : RADIO

BAND button : FM




- AM alignment should be done with mechadeck attached.
- Repeat the procedures in each adjustment several times for a maximum reading on level meter.

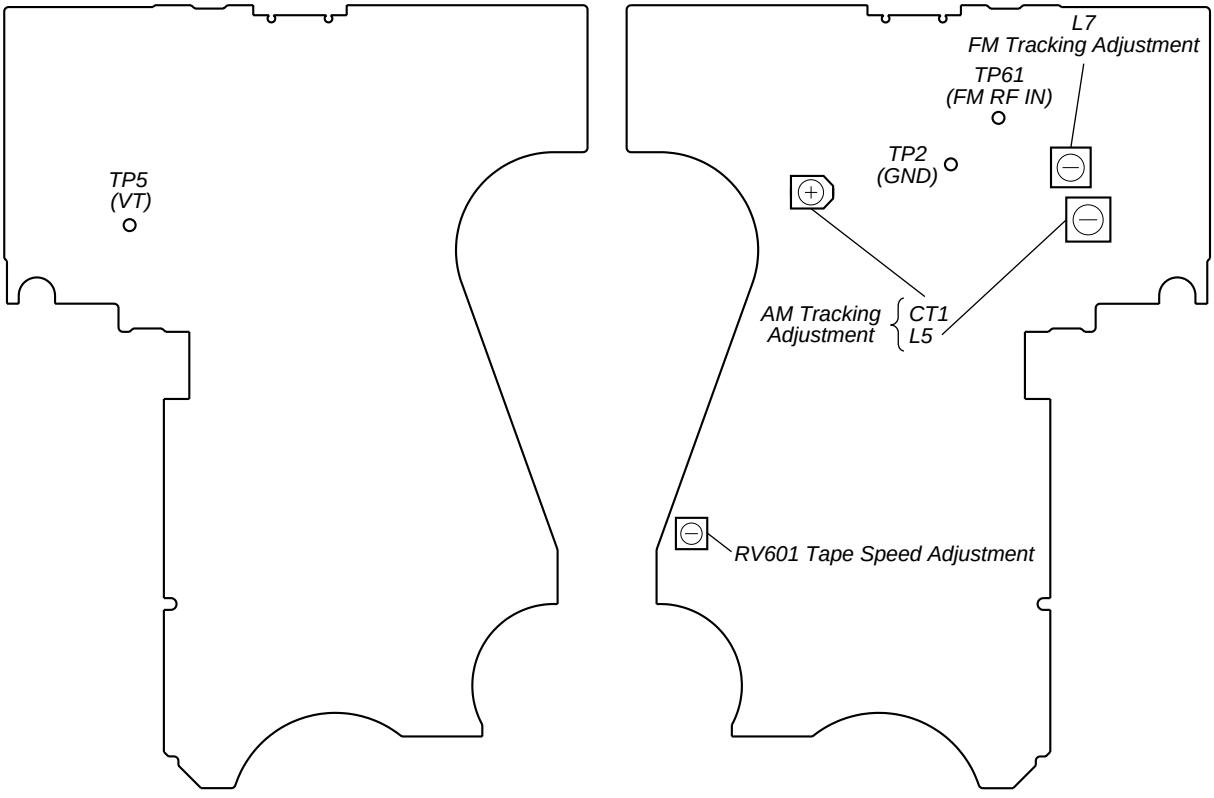
| AM VT VOLTAGE ADJUSTMENT | | |
|---|---|---|
| Adjustment Part | Frequency Display | Reading on Digital Voltmeter |
| Confirmation | 531kHz | 1.3 ± 0.3 V |
| Confirmation | 1602 kHz | 7.0 ± 0.5 V |

| AM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter | |
| L5 | 621 kHz |
| CT1 | 1395 kHz |

| FM VT VOLTAGE ADJUSTMENT | | |
|---|---|---|
| Adjustment Part | Frequency Display | Reading on Digital Voltmeter |
| Confirmation | 87.5 MHz | 3.85 ± 0.5 V |
| Confirmation | 108 MHz | 7.7 ± 1 V |

| FM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter | |
| L7 | 87.5 MHz |
| Confirmation | 108 MHz |

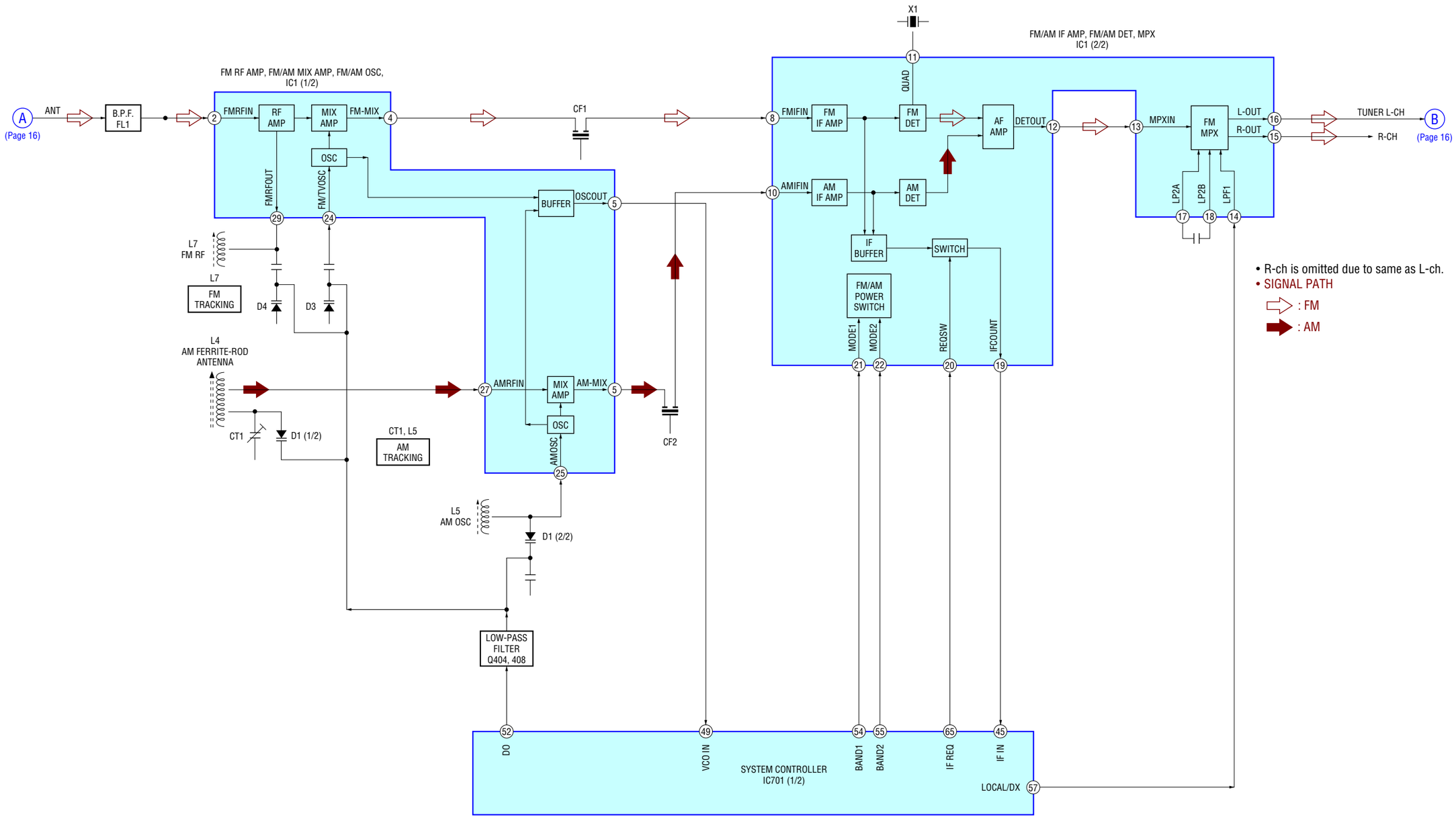
**Adjustment Location:**



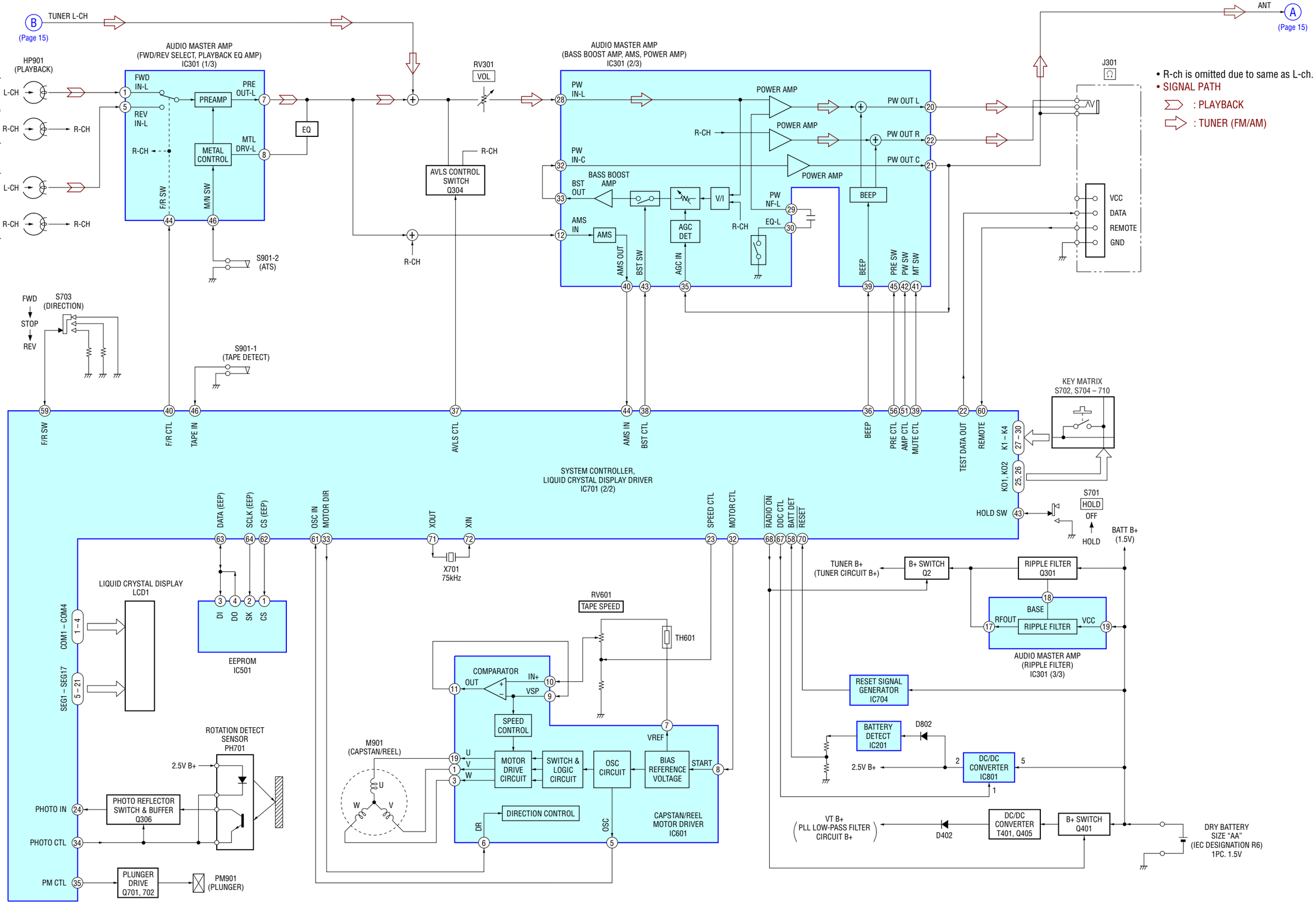
*MEMO*

# SECTION 6
# DIAGRAMS

## 6-1. BLOCK DIAGRAM – TUNER Section –



## 6-2. BLOCK DIAGRAM – MAIN Section –



## 6-3. NOTE FOR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAMS

**Note on Printed Wiring Board:**

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⊡← : indicates side identified with part number.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

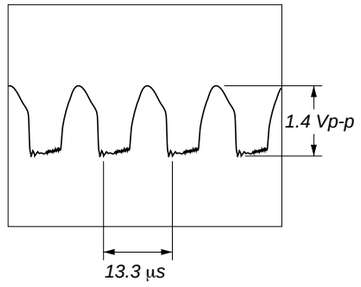
| Caution: | |
|---|---|
| Pattern face side: (Conductor Side) | Parts on the pattern face side seen from the pattern face are indicated. |
| Parts face side: (Component Side) | Parts on the parts face side seen from the parts face are indicated. |

**Note on Schematic Diagram:**

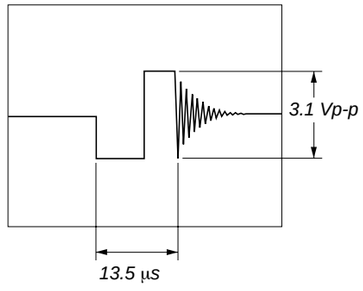
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 1.5V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground in no-signal (detuned) conditions.
  no mark : PLAYBACK
  ( ) : FM
  ⟨⟨ ⟩⟩ : AM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : PLAYBACK

- **Waveforms**

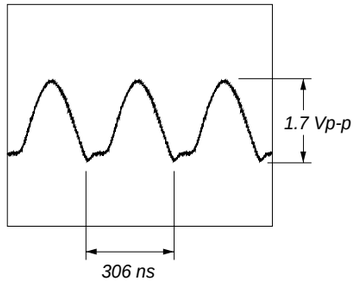
❶ IC701 ㉑ (XOUT)



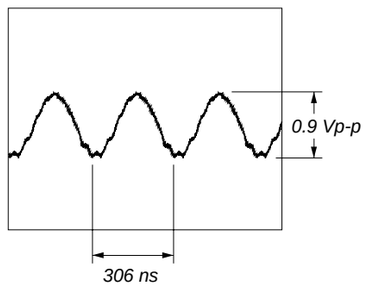

❷ IC801 ⑤ (LX) (Playback mode)



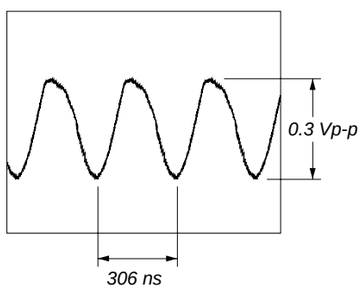

❸ Q405 (Collector) (FM/AM mode)




❹ Q405 (Emitter) (FM/AM mode)




❺ Q405 (Base) (FM/AM mode)



## 6-4. SCHEMATIC DIAGRAM – MAIN Board (1/2) – • See page 21 for IC Block Diagrams.

【MAIN BOARD】(1/2)

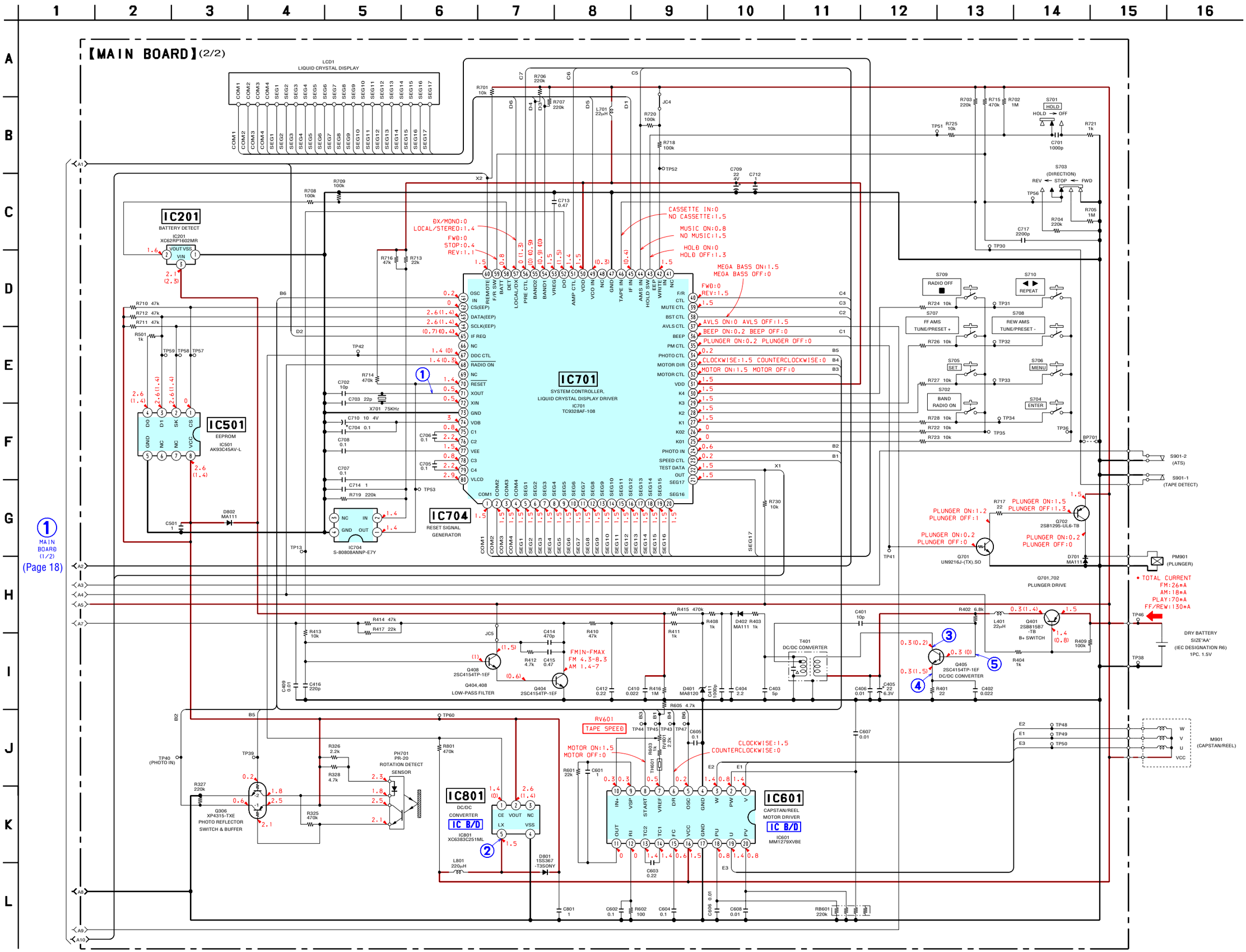
IC1
FM RF AMP,FM/AM MIX AMP,
FM/AM OSC,FM/AM IF AMP,
FM/AM DET,MPX
IC B/D
IC1
TA2154FN

IC301
AUDIO MASTER AMP
FWD/REV SELECT,
PLAYBACK EQ AMP,
BASS BOOST AMP,
AMS,POWER AMP,
RIPPLE FILTER
IC301
TA2123AF

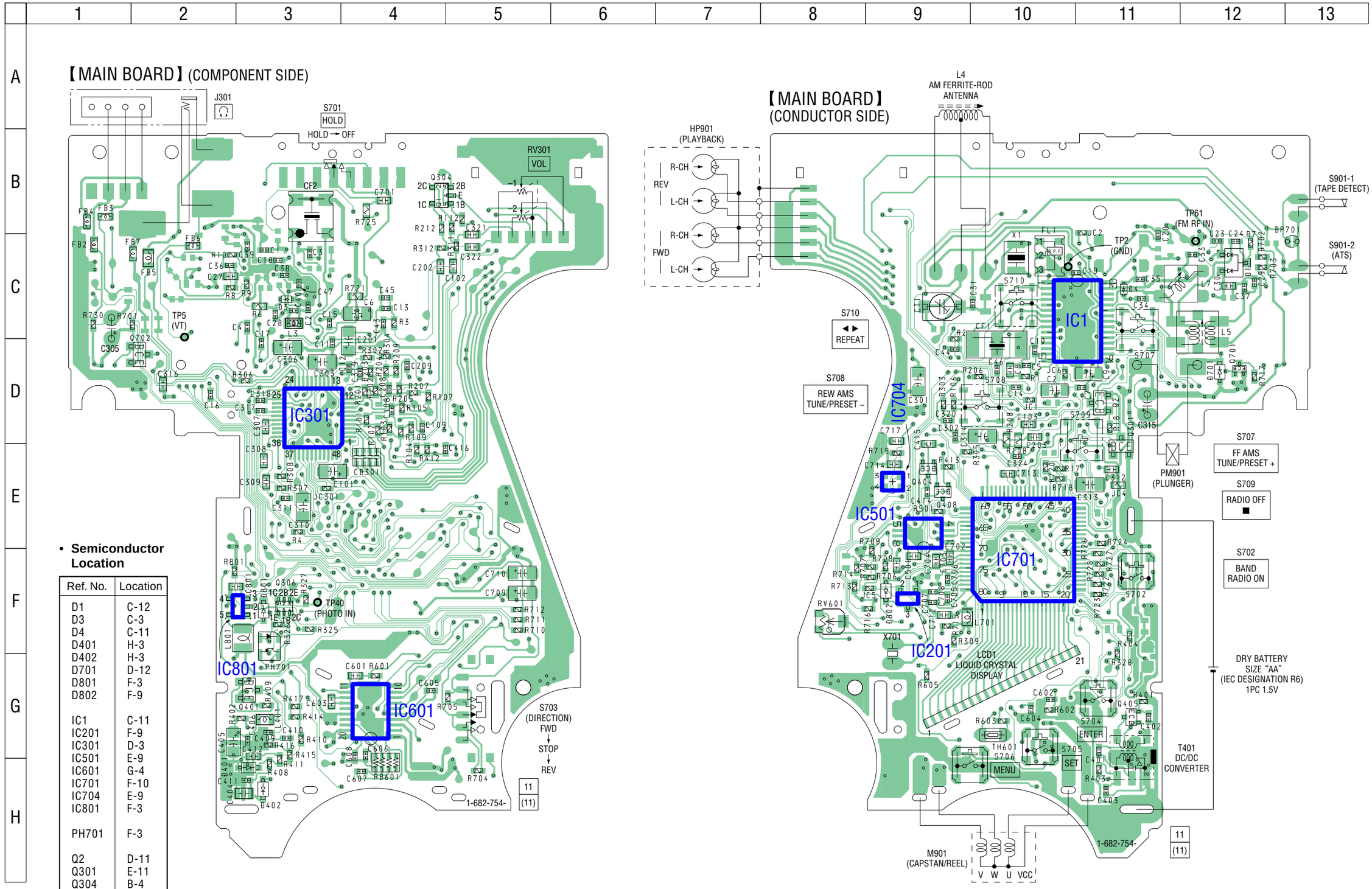
① MAIN BOARD (2/2) (Page 19)

## 6-5. SCHEMATIC DIAGRAM – MAIN Board (2/2) –

• See page 17 for Waveforms. • See page 21 for IC Block Diagrams.



### 6-6. PRINTED WIRING BOARD

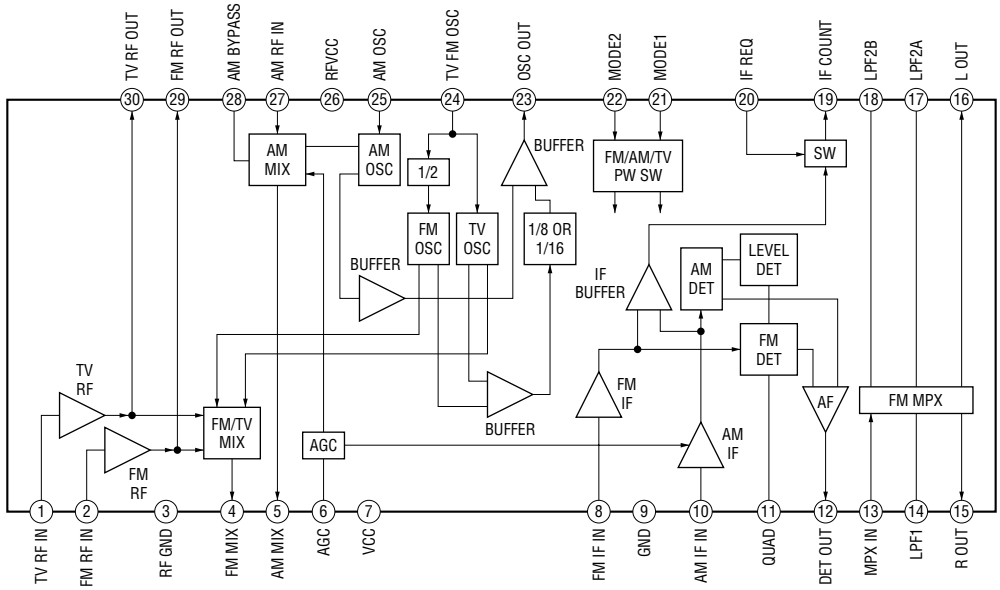



- **Semiconductor Location**

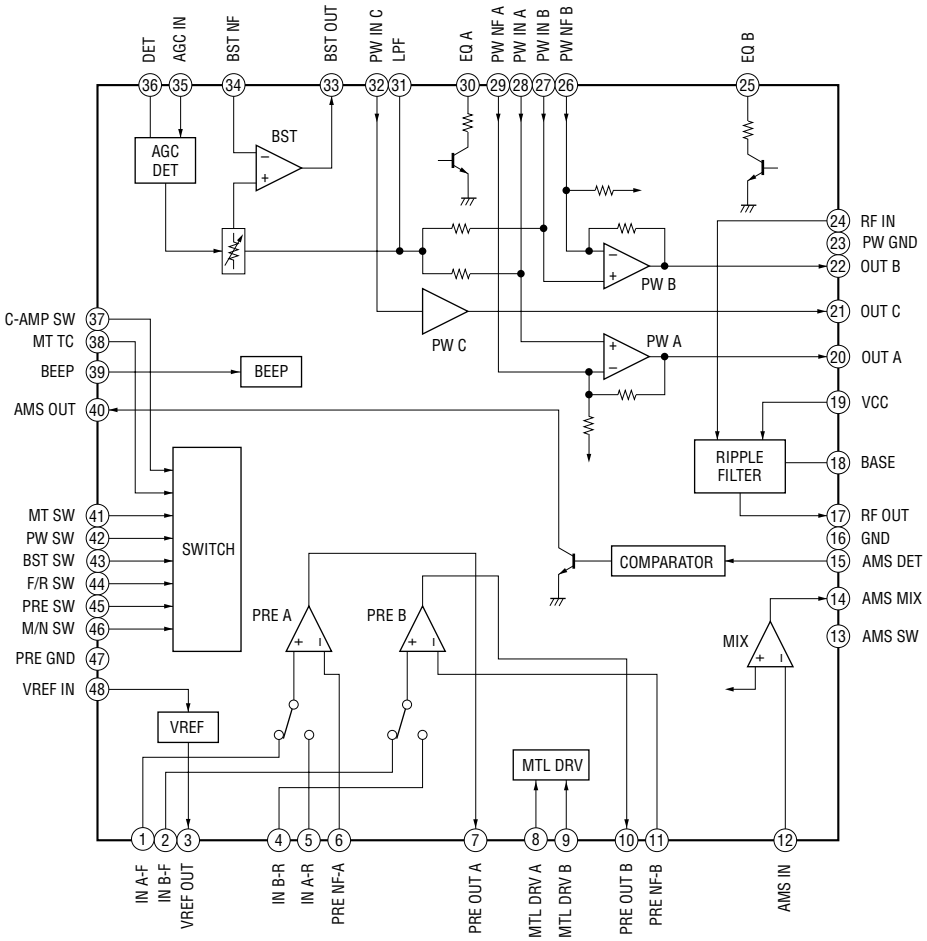
| Ref. No. | Location |
|---|---|
| D1 | C-12 |
| D3 | C-3 |
| D4 | C-11 |
| D401 | H-3 |
| D402 | H-3 |
| D701 | D-12 |
| D801 | F-3 |
| D802 | F-9 |
| | |
| IC1 | C-11 |
| IC201 | F-9 |
| IC301 | D-3 |
| IC501 | E-9 |
| IC601 | G-4 |
| IC701 | F-10 |
| IC704 | E-9 |
| IC801 | F-3 |
| | |
| PH701 | F-3 |
| | |
| Q2 | D-11 |
| Q301 | E-11 |
| Q304 | B-4 |
| Q306 | F-3 |
| Q401 | G-3 |
| Q404 | E-9 |
| Q405 | G-11 |
| Q408 | E-9 |
| Q701 | D-12 |
| Q702 | D-2 |

- **IC Block Diagrams**

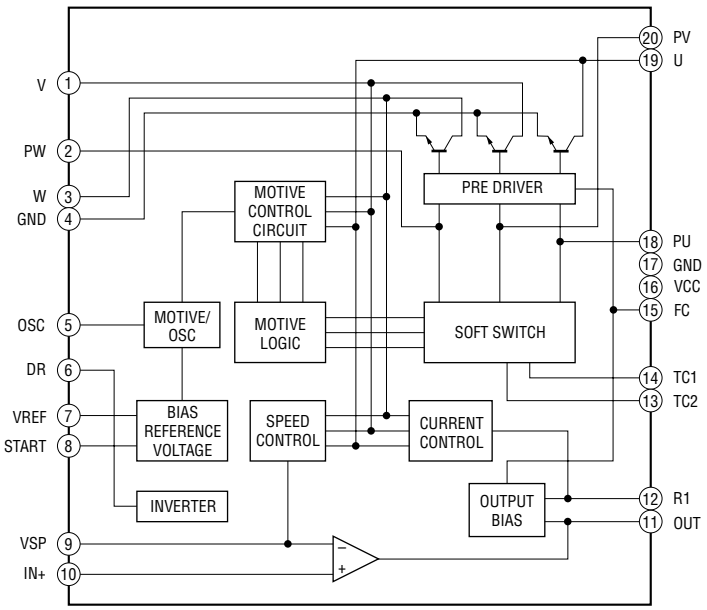
## IC1 TA2154FN-(EL)



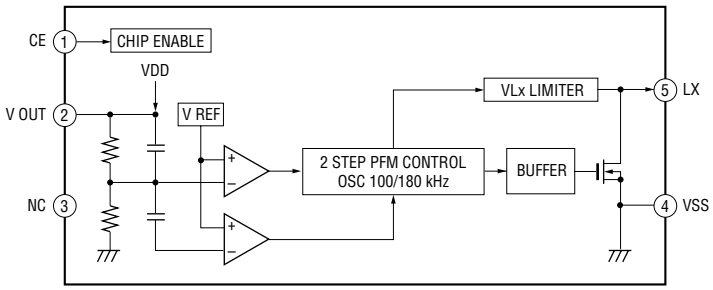

## IC301 TA2123AF (EL)



## IC601 MM1279XVBE




## IC801 XC6383C251ML



## 6-7. IC PIN FUNCTION DESCRIPTION

**• IC701 TC9328AF-108 (SYSTEM CONTROLLER, LIQUID CRYSTAL DISPLAY DRIVER)**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 to 4 | COM1 to COM4 | O | Common drive signal output to the liquid crystal display |
| 5 to 21 | SEG1 to SEG17 | O | Segment drive signal output to the liquid crystal display |
| 22 | TEST DATA OUT | O | Remote control data output to the remote commander |
| 23 | SPEED CTL | O | Capstan/reel motor speed control signal output "L": 1/2 speed, "H": normal speed |
| 24 | PHOTO IN | I | Rotation detection signal input of the capstan/reel motor |
| 25, 26 | KO1, KO2 | O | Key output to the key matrix |
| 27 to 30 | K1 to K4 | I | Key input from the key matrix |
| 31 | VDD | — | Power supply terminal (+1.5V) |
| 32 | MOTOR CTL | O | Capstan/reel motor start control signal output "H": motor on |
| 33 | MOTOR DIR | O | Capstan/reel motor direction control signal output "L": counterclockwise, "H": clockwise |
| 34 | PHOTO CTL | O | Control signal output to the capstan/reel motor rotation detection circuit<br>"H": rotation detection circuit on |
| 35 | PM CTL | O | Plunger drive signal output "H": plunger on |
| 36 | BEEP | O | Beep sound signal output "H": beep sound on |
| 37 | AVLS CTL | O | AVLS (Automatic Volume Limiter System) on/off control signal output "L": AVLS on |
| 38 | BST CTL | O | Bass boost control signal output "H": mega bass on |
| 39 | MUTE CTL | O | Power on muting control signal output "L": muting on |
| 40 | F/R CTL | O | Forward/reverse selection signal output "L": forward direction, "H": reverse direction |
| 41 | NC | I | Not used |
| 42 | EEP WRITE IN | I | Input terminal for the EEPROM write mode "L": EEPROM write mode |
| 43 | HOLD SW | I | HOLD switch input terminal "L": hold on |
| 44 | AMS IN | I | AMS (Automatic Music Sensor) detection signal input<br>"L": music is present, "H": music is not present |
| 45 | IF IN | I | Intermediate frequency detection signal input |
| 46 | TAPE IN | I | Cassette tape detection switch input terminal "L": cassette detected, "H": no cassette |
| 47 | GND | — | Ground terminal |
| 48 | NC | I | Not used |
| 49 | VCO IN | I | FM/AM VCO input |
| 50 | VDD | — | Power supply terminal (+1.5V) |
| 51 | AMP CTL | O | Power on/off control signal output to the audio master amplifier "H": power on |
| 52 | DO | O | PLL phase comparator output |
| 53 | VREG | — | PLL constant voltage power supply |
| 54 | BAND1 | O | Band selection signal output "L": AM, "H": FM |
| 55 | BAND2 | O | Band selection signal output "L": FM, "H": AM |
| 56 | PRE CTL | O | Pre-amplifier on/off control signal output "L": tape play, "H": radio on |
| 57 | LOCAL/DX | O | FM stereo/mono selection signal output "L": mono, "H": stereo |
| 58 | BATT DET | I | Battery voltage detection signal input (reference voltage input) (A/D input) |
| 59 | F/R SW | I | Tape direction switch input terminal (A/D input) "L": forward position |
| 60 | REMOTE | I | Remote control data input from the remote commander (A/D input) |
| 61 | OSC IN | I | Motor restart control signal input (A/D input) |
| 62 | CS (EEP) | O | Chip select signal output to the EEPROM |
| 63 | DATA (EEP) | I/O | Two-way data bus with the EEPROM |
| 64 | SCLK (EEP) | O | Serial clock signal output to the EEPROM |
| 65 | IF REQ | O | Intermediate frequency request signal output "L": request |
| 67 | DDC CTL | O | Power on/off control signal output of the DC/DC converter "H": power on |

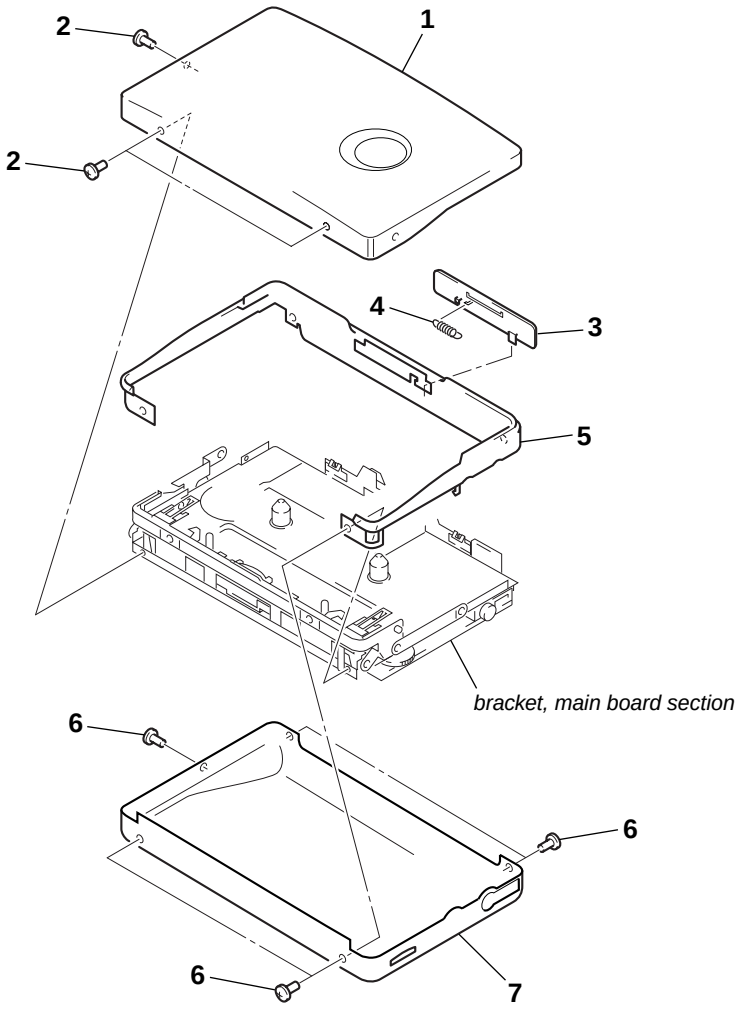
| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 68 | $\overline{\text{RADIO ON}}$ | O | Power on/off control signal output of the tuner circuit<br>“L”: power on (tuner on), “H”: power off (tape on) |
| 69 | NC | O | Not used |
| 70 | $\overline{\text{RESET}}$ | I | System reset signal input “L”: reset<br>For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H” |
| 71 | XOUT | O | Main system clock output terminal (75 kHz) |
| 72 | XIN | I | Main system clock input terminal (75 kHz) |
| 73 | GND | — | Ground terminal |
| 74 | VDB | — | Connection terminal of doubler circuit capacitor for liquid crystal display drive power supply |
| 75, 76 | C1, C2 | — | Connection terminal of doubler circuit capacitor for liquid crystal display drive power supply |
| 77 | VEE | — | Connection terminal of doubler circuit capacitor for liquid crystal display drive power supply |
| 78, 79 | C3, C4 | — | Connection terminal of doubler circuit capacitor for liquid crystal display drive power supply |
| 80 | VLCD | — | Connection terminal of doubler circuit capacitor for liquid crystal display drive power supply |

# SECTION 7
# EXPLODED VIEWS

NOTE:

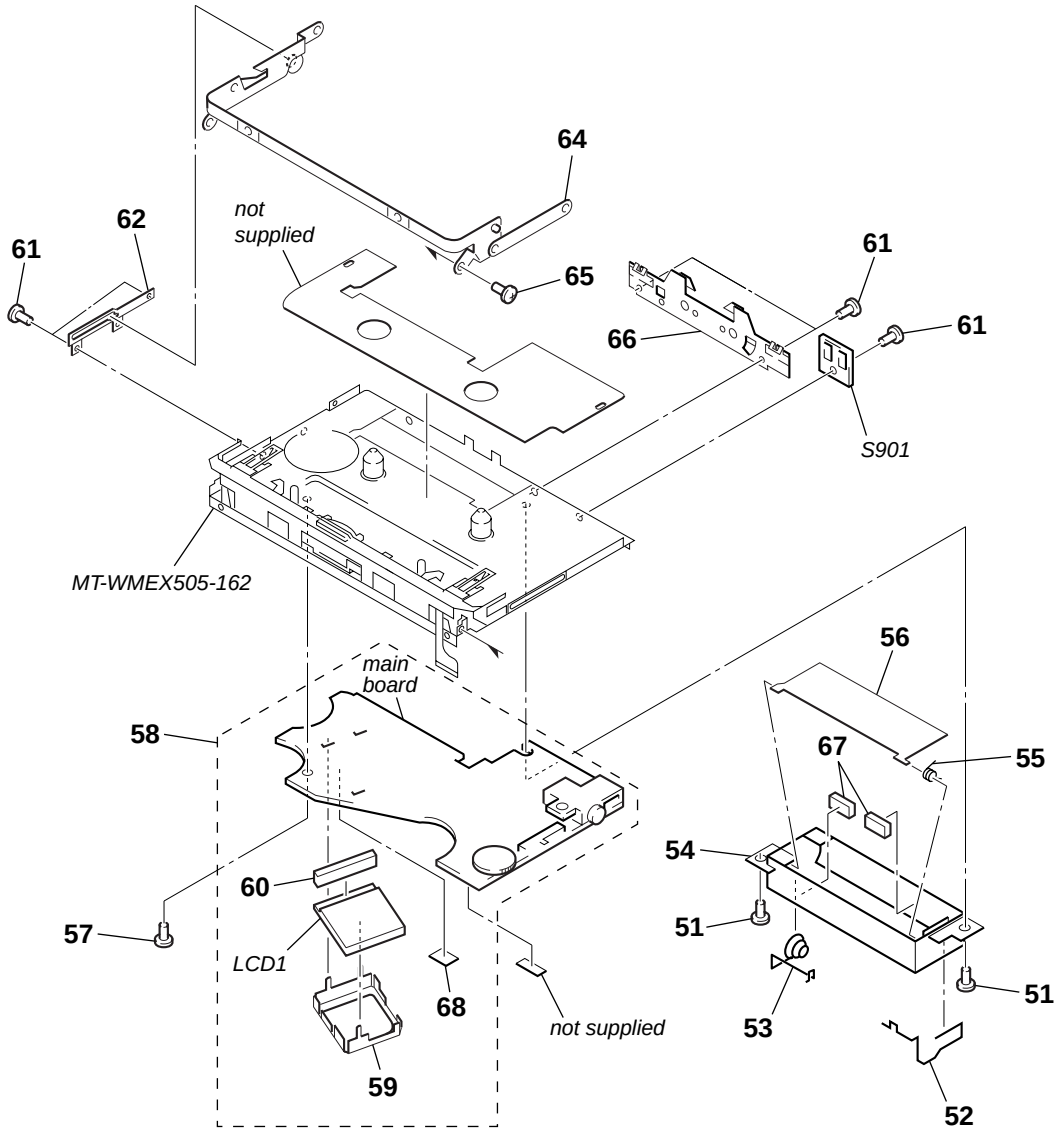
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

## 7-1. CASE SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | X-3382-977-1 | LID ASSY, CASSETTE (S) (SILVER) | |
| 1 | X-3382-978-1 | LID ASSY, CASSETTE (L) (BLUE) | |
| 1 | X-3382-979-1 | LID ASSY, CASSETTE (R) (RED) | |
| 2 | 3-225-996-09 | SCREW (M1.4) (EG), PRECISION PAN | |
| 3 | 3-029-219-61 | KNOB (OPEN) (for SILVER) | |
| 3 | 3-029-219-71 | KNOB (OPEN) (for BLUE, RED) | |
| 4 | 3-029-220-11 | SPRING, TENSION | |
| 5 | 3-233-968-41 | ORNAMENT REEL (for SILVER) | |
| 5 | 3-233-968-51 | ORNAMENT REEL (for BLUE, RED) | |
| 6 | 3-225-996-11 | SCREW (M1.4) (EG), PRECISION PAN | |
| 7 | X-3382-685-1 | BLOCK (S) ASSY, CASE (SILVER) | |
| 7 | X-3382-686-1 | BLOCK (L) ASSY, CASE (BLUE) | |
| 7 | X-3382-687-1 | BLOCK (R) ASSY, CASE (RED) | |

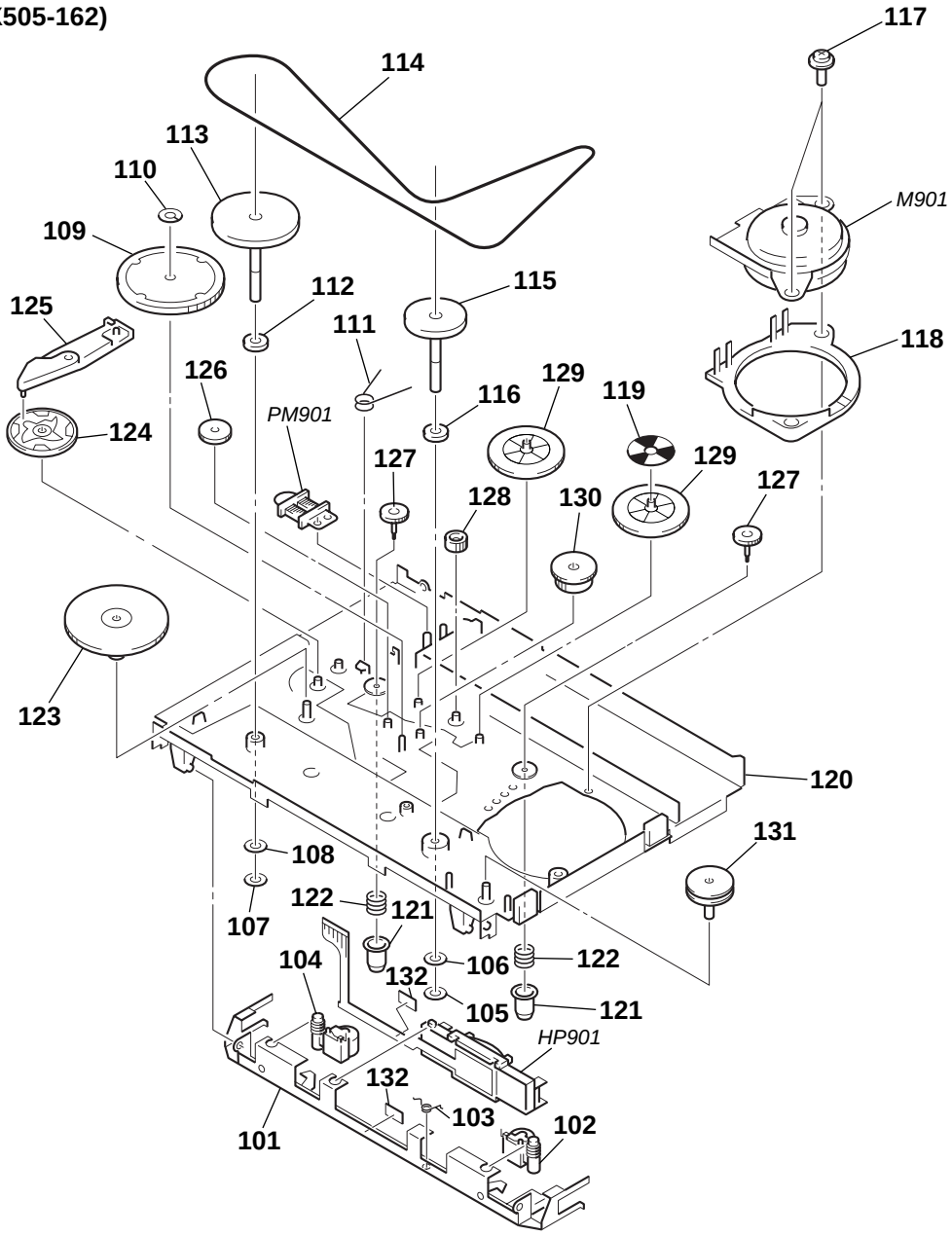
## 7-2. BRACKET, MAIN BOARD SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 51 | 3-375-114-81 | SCREW | |
| 52 | 3-042-004-01 | TERMINAL (+), BATTERY | |
| 53 | 3-042-005-11 | TERMINAL (-), BATTERY | |
| 54 | 3-042-001-04 | HOLDER, BATTERY | |
| 55 | 3-042-003-01 | SPRING | |
| 56 | 3-042-002-01 | LID, BATTERY CASE | |
| 57 | 3-345-648-95 | SCREW (M1.4), TOOTHED LOCK | |
| * 58 | A-3021-647-A | MAIN BOARD, COMPLETE | |
| 59 | 3-234-097-01 | HOLDER, LCD | |
| 60 | 3-234-413-01 | RUBBER, CONDUCTIVE | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 61 | 3-939-590-05 | SCREW (IB LOCK) | |
| 62 | 3-038-054-01 | LEVER (B) (/M), LOCK | |
| 64 | X-3377-719-1 | BRACKET (CASSETTE) ASSY (/M) | |
| 65 | 3-365-630-41 | SCREW (M1.4) | |
| 66 | X-3377-717-2 | BRACKET ASSY (/M) | |
| 67 | 3-241-345-02 | CUSHION | |
| 68 | 3-033-757-01 | SHEET (H) | |
| LCD1 | 1-804-524-11 | LIQUID CRYSTAL DISPLAY | |
| S901 | 1-771-888-11 | SWITCH, LEAF (TAPE DETECT, ATS) | |

## 7-3. MECHANISM DECK SECTION (MT-WMEX505-162)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | X-3378-354-5 | HOLDER (FS) ASSY | |
| 102 | X-3377-363-1 | LEVER (R) ASSY, PINCH | |
| 103 | 3-046-789-01 | SPRING (HDA) | |
| 104 | X-3377-362-1 | LEVER (N) ASSY, PINCH | |
| 105 | 3-029-275-01 | WASHER (STOPPER N) | |
| 106 | 3-029-278-01 | WASHER | |
| 107 | 3-029-276-02 | WASHER (STOPPER R) | |
| 108 | 3-029-289-01 | WASHER | |
| 109 | X-3376-813-1 | CLUTCH ASSY (F) | |
| 110 | 3-932-724-21 | WASHER | |
| 111 | 3-040-897-04 | SPRING (TGA), TORSION | |
| 112 | 3-386-694-01 | WASHER | |
| 113 | 3-029-306-21 | FLYWHEEL (N), INSERT | |
| 114 | 3-388-079-01 | BELT | |
| 115 | 3-029-268-21 | FLYWHEEL (R), INSERT | |
| 116 | 3-007-428-01 | WASHER (R) | |
| 117 | 3-029-765-01 | SCREW (M1.4), TOOTHED LOCK | |
| 118 | 3-029-274-11 | RETAINER (F2), MOTOR | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 119 | 3-007-433-01 | SHEET (N), REFLECTION | |
| 120 | X-3378-107-3 | CHASSIS ASSY (FB) | |
| 121 | 3-010-274-02 | TABLE, REEL | |
| 122 | 3-010-954-01 | SPRING (BT), COMPRESSION | |
| 123 | 3-029-282-01 | GEAR (Y) | |
| 124 | 3-029-285-02 | GEAR, CAM | |
| 125 | 3-029-284-03 | LEVER, TRIGGER | |
| 126 | 3-029-281-01 | GEAR, IDLER (B) | |
| 127 | 3-010-273-02 | GEAR (REEL) | |
| 128 | 3-029-273-01 | GEAR (FR) | |
| 129 | 3-029-283-02 | GEAR, IDLER (A) | |
| 130 | 3-029-286-01 | GEAR (NR) | |
| 131 | 3-029-288-01 | PULLEY, REVERSE | |
| 132 | 3-033-757-01 | SHEET (H) | |
| HP901 | 1-500-639-21 | HEAD, MAGNETIC (PLAYBACK) | |
| M901 | 1-763-166-14 | MOTOR (CAPSTAN/REEL) (WITH PULLEY) | |
| PM901 | 1-454-674-41 | SOLENOID, PLUNGER | |

# SECTION 8
# ELECTRICAL PARTS LIST

**MAIN**

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. .  uPA. . : µPA. .
  uPB. . : µPB. .  uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

When indicating parts by reference number, please include the board.

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-3021-647-A | MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| | 3-033-757-01 | SHEET (H) | | | |
| | 3-234-097-01 | HOLDER, LCD | | | |
| | 3-234-413-01 | RUBBER, CONDUCTIVE | | | |
| | | < CAPACITOR > | | | |
| C1 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C2 | 1-135-151-21 | TANTALUM CHIP | 4.7uF | 20% | 4V |
| C3 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C4 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C5 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C6 | 1-135-151-21 | TANTALUM CHIP | 4.7uF | 20% | 4V |
| C7 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C8 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10% | 6.3V |
| C9 | 1-131-862-11 | TANTALUM CHIP | 47uF | 20% | 4V |
| C10 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C11 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C12 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C13 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C14 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C15 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C16 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C17 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C18 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C19 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C20 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C21 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C23 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C24 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C27 | 1-164-676-11 | CERAMIC CHIP | 2200PF | 5% | 16V |
| C28 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C29 | 1-164-850-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C30 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C31 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C33 | 1-164-842-11 | CERAMIC CHIP | 2PF | 0.25PF | 50V |
| C34 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C35 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C36 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C37 | 1-164-845-11 | CERAMIC CHIP | 5PF | 0.25PF | 50V |
| C38 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C39 | 1-164-882-11 | CERAMIC CHIP | 220PF | 5% | 16V |
| C40 | 1-164-842-11 | CERAMIC CHIP | 2PF | 0.25PF | 50V |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C43 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C44 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C45 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C46 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C47 | 1-164-882-11 | CERAMIC CHIP | 220PF | 5% | 16V |
| C101 | 1-131-862-11 | TANTALUM CHIP | 47uF | 20% | 4V |
| C102 | 1-135-834-11 | CERAMIC CHIP | 2.2uF | | 6.3V |
| C103 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10% | 6.3V |
| C108 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C109 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C201 | 1-131-862-11 | TANTALUM CHIP | 47uF | 20% | 4V |
| C202 | 1-135-834-11 | CERAMIC CHIP | 2.2uF | | 6.3V |
| C203 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10% | 6.3V |
| C208 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C209 | 1-119-923-81 | CERAMIC CHIP | 0.047uF | 10% | 10V |
| C301 | 1-131-862-11 | TANTALUM CHIP | 47uF | 20% | 4V |
| C302 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C303 | 1-119-750-11 | TANTALUM CHIP | 22uF | 20% | 6.3V |
| C305 | 1-126-518-11 | ELECT | 470uF | 20% | 4V |
| C306 | 1-135-151-21 | TANTALUM CHIP | 4.7uF | 20% | 4V |
| C307 | 1-107-826-11 | CERAMIC CHIP | 0.1uF | 10% | 16V |
| C308 | 1-165-128-11 | CERAMIC CHIP | 0.22uF | | 16V |
| C309 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C310 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C311 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C312 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C313 | 1-135-151-21 | TANTALUM CHIP | 4.7uF | 20% | 4V |
| C314 | 1-135-149-21 | TANTALUM CHIP | 2.2uF | 20% | 10V |
| C315 | 1-124-635-00 | ELECT | 220uF | 20% | 6.3V |
| C316 | 1-135-834-11 | CERAMIC CHIP | 2.2uF | | 6.3V |
| C317 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C318 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C319 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C320 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10% | 16V |
| C321 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C322 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C324 | 1-164-933-11 | CERAMIC CHIP | 220PF | 10% | 50V |
| C401 | 1-164-850-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C402 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C403 | 1-164-845-11 | CERAMIC CHIP | 5PF | 0.25PF | 50V |
| C404 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C405 | 1-119-750-11 | TANTALUM CHIP | 22uF | 20% | 6.3V |
| C406 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C409 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |

**MAIN**

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C410 | 1-107-819-11 | CERAMIC CHIP | 0.022uF | 10% | 16V |
| C411 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C412 | 1-165-128-11 | CERAMIC CHIP | 0.22uF | | 16V |
| C414 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C415 | 1-125-891-11 | CERAMIC CHIP | 0.47uF | 10% | 10V |
| C416 | 1-164-933-11 | CERAMIC CHIP | 220PF | 10% | 50V |
| C501 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C601 | 1-125-837-11 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C602 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C603 | 1-115-467-11 | CERAMIC CHIP | 0.22uF | 10% | 10V |
| C604 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C605 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10% | 10V |
| C606 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C607 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C608 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10% | 16V |
| C701 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C702 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C703 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C704 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C705 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C706 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C707 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C708 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C709 | 1-104-847-11 | TANTALUM CHIP | 22uF | 20% | 4V |
| C710 | 1-135-201-11 | TANTALUM CHIP | 10uF | 20% | 4V |
| C712 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C713 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10% | 6.3V |
| C714 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C717 | 1-162-966-11 | CERAMIC CHIP | 0.0022uF | 10% | 50V |
| C801 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| | | < COMPOSITION CIRCUIT BLOCK > | | | |
| CB301 | 1-127-575-21 | CAP, CHIP CERAMIC 470PF SL | | | |
| | | < CERAMIC FILTER > | | | |
| CF1 | 1-767-362-11 | FILTER, CERAMIC | | | |
| CF2 | 1-767-480-11 | FILTER, CERAMIC (AM) | | | |
| | | < TRIMMER > | | | |
| CT1 | 1-141-327-11 | CAP, CHIP TYPE TRIMMER | | | |
| | | < DIODE > | | | |
| D1 | 8-759-072-60 | DIODE SVC347T-TL | | | |
| D3 | 8-719-080-77 | DIODE MA2S357 (E) -(TX).SO | | | |
| D4 | 8-719-080-77 | DIODE MA2S357 (E) -(TX).SO | | | |
| D401 | 8-719-158-49 | DIODE RD12SB2 | | | |
| D402 | 8-719-404-50 | DIODE MA111-TX | | | |
| D701 | 8-719-404-50 | DIODE MA111-TX | | | |
| D801 | 8-719-049-09 | DIODE 1SS367-T3SONY | | | |
| D802 | 8-719-404-50 | DIODE MA111-TX | | | |
| | | < FERRITE BEAD > | | | |
| FB2 | 1-414-760-21 | FERRITE | 0uH | | |
| FB3 | 1-414-760-21 | FERRITE | 0uH | | |
| FB4 | 1-414-760-21 | FERRITE | 0uH | | |
| FB5 | 1-500-245-22 | FERRITE | 0uH | | |
| FB6 | 1-414-760-21 | FERRITE | 0uH | | |
| FB7 | 1-414-760-21 | FERRITE | 0uH | | |
| | | < BAND PASS FILTER > | | | |
| FL1 | 1-239-015-21 | FILTER, BAND PASS | | | |
| | | < IC > | | | |
| IC1 | 6-701-310-01 | IC TA2154FN-(EL) | | | |
| IC201 | 8-759-457-70 | IC XC62RP1602MR | | | |
| IC301 | 8-759-579-12 | IC TA2123AF (EL) | | | |
| IC501 | 8-759-457-68 | IC AK93C45AV-L | | | |
| IC601 | 8-759-356-46 | IC MM1279XVBE | | | |
| IC701 | 6-801-906-01 | IC TC9328AF-108 | | | |
| IC704 | 8-759-572-21 | IC S-80808ANNP-E7Y-T2 | | | |
| IC801 | 8-759-553-28 | IC XC6383C251ML | | | |
| | | < JACK > | | | |
| J301 | 1-779-867-81 | JACK (🎧) | | | |
| | | < RESISTOR > | | | |
| JC1 | 1-218-990-11 | SHORT CHIP | 0 | | |
| JC2 | 1-218-990-11 | SHORT CHIP | 0 | | |
| JC4 | 1-216-864-11 | SHORT CHIP | 0 | | |
| JC5 | 1-218-990-11 | SHORT CHIP | 0 | | |
| JC6 | 1-218-990-11 | SHORT CHIP | 0 | | |
| JC301 | 1-218-990-11 | SHORT CHIP | 0 | | |
| | | < COIL > | | | |
| L3 | 1-400-215-21 | FERRITE | 0uH | | |
| L4 | 1-424-991-11 | ANTENNA, FERRITE-ROD | | | |
| L5 | 1-406-404-11 | COIL (MW OSCILATION) | | | |
| L7 | 1-424-983-21 | COIL, RF (FM ) | | | |
| L401 | 1-412-010-41 | INDUCTOR CHIP | 22uH | | |
| L701 | 1-412-010-41 | INDUCTOR CHIP | 22uH | | |
| L801 | 1-412-033-11 | INDUCTOR CHIP | 220uH | | |
| | | < LIQUID CRYSTAL DISPLAY > | | | |
| LCD1 | 1-804-524-11 | LIQUID CRYSTAL DISPLAY | | | |
| | | < PHOTO REFLECTOR > | | | |
| PH701 | 8-749-014-43 | PHOTO REFLECTOR | PR-20-T | | |
| | | < TRANSISTOR > | | | |
| Q2 | 8-729-800-71 | TRANSISTOR | 2SB815B7-TB | | |
| Q301 | 8-729-800-71 | TRANSISTOR | 2SB815B7-TB | | |
| Q304 | 8-729-423-75 | TRANSISTOR | XN1116 | | |
| Q306 | 8-729-425-46 | TRANSISTOR | XP4315-TXE | | |
| Q401 | 8-729-800-71 | TRANSISTOR | 2SB815B7-TB | | |
| Q404 | 8-729-602-21 | TRANSISTOR | 2SC4154-F | | |
| Q405 | 8-729-602-21 | TRANSISTOR | 2SC4154-F | | |
| Q408 | 8-729-602-21 | TRANSISTOR | 2SC4154-F | | |
| Q701 | 8-729-013-60 | TRANSISTOR | RN1110-TE85L | | |
| Q702 | 8-729-800-71 | TRANSISTOR | 2SB815B7-TB | | |
| | | < RESISTOR > | | | |
| R1 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |

## MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R2 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R3 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R4 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R6 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/10W |
| R7 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R8 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R9 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R10 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R17 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R18 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R101 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R102 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R103 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R104 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R105 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R106 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R107 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R108 | 1-216-789-11 | METAL CHIP | 2.2 | 5% | 1/10W |
| R109 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R112 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R201 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R202 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R203 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R204 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R205 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R206 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R207 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R208 | 1-216-789-11 | METAL CHIP | 2.2 | 5% | 1/10W |
| R209 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R212 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R302 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R303 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R304 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R305 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R306 | 1-220-803-81 | RES-CHIP | 4.7 | 5% | 1/16W |
| R307 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R308 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R309 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R311 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R312 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R325 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R326 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R327 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R328 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R401 | 1-208-643-11 | RES-CHIP | 22 | 5% | 1/16W |
| R402 | 1-208-703-11 | METAL CHIP | 6.8K | 0.5% | 1/16W |
| R403 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R404 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R408 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R409 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R410 | 1-208-927-11 | METAL CHIP | 47K | 0.5% | 1/16W |
| R411 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R412 | 1-208-699-11 | METAL CHIP | 4.7K | 0.5% | 1/16W |
| R413 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R414 | 1-208-927-11 | METAL CHIP | 47K | 0.5% | 1/16W |
| R415 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R416 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R417 | 1-208-715-11 | METAL CHIP | 22K | 0.5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R501 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R601 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R602 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R603 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R605 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R701 | 1-208-707-11 | METAL CHIP | 10K | 0.5% | 1/16W |
| R702 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R703 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R704 | 1-208-943-11 | METAL CHIP | 220K | 0.5% | 1/16W |
| R705 | 1-218-989-11 | METAL CHIP | 1M | 0.5% | 1/16W |
| R706 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R707 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R708 | 1-208-935-11 | METAL CHIP | 100K | 0.5% | 1/16W |
| R709 | 1-208-935-11 | METAL CHIP | 100K | 0.5% | 1/16W |
| R710 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R711 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R712 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R713 | 1-208-715-11 | METAL CHIP | 22K | 0.5% | 1/16W |
| R714 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R715 | 1-218-985-11 | METAL CHIP | 470K | 0.5% | 1/16W |
| R716 | 1-208-927-11 | METAL CHIP | 47K | 0.5% | 1/16W |
| R717 | 1-208-643-11 | RES-CHIP | 22 | 5% | 1/16W |
| R718 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R719 | 1-208-943-11 | METAL CHIP | 220K | 0.5% | 1/16W |
| R720 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R721 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/10W |
| R722 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R723 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R724 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R725 | 1-216-833-11 | RES-CHIP | 10K | 5% | 1/10W |
| R726 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R727 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R728 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R730 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R801 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| | | < COMPOSITION CIRCUIT BLOCK > | | | |
| RB601 | 1-234-243-21 | RES, NETWORK 220K (3216) | | | |
| | | < VARIABLE RESISTOR > | | | |
| RV301 | 1-227-167-21 | RES, VAR, CARBON 30K/30K (VOL) | | | |
| RV601 | 1-238-088-11 | RES, ADJ, CERMET 2.2K | | | |
| | | < SWITCH > | | | |
| S701 | 1-570-397-11 | SWITCH, SLIDE (HOLD) | | | |
| S702 | 1-771-851-21 | SWITCH, TACTILE (SMD) (BAND, RADIO ON) | | | |
| S703 | 1-771-475-21 | SWITCH, SLIDE (DIRECTION) | | | |
| S704 | 1-771-851-21 | SWITCH, TACTILE (SMD) (ENTER) | | | |
| S705 | 1-771-851-21 | SWITCH, TACTILE (SMD) (SET) | | | |
| S706 | 1-771-851-21 | SWITCH, TACTILE (SMD) (MENU) | | | |
| S707 | 1-771-693-21 | SWITCH, TACTILE (FF AMS, TUNE/PRESET +) | | | |
| S708 | 1-771-693-21 | SWITCH, TACTILE (REW AMS, TUNE/PRESET –) | | | |
| S709 | 1-771-693-21 | SWITCH, TACTILE (RADIO OFF, ■) | | | |
| S710 | 1-771-693-21 | SWITCH, TACTILE(◄► REPEAT) | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < TRANSFORMER > | |
| T401 | 1-437-599-21 | TRANSFORMER, DC/DC CONVERTER | |
| | | < THERMISTOR > | |
| TH601 | 1-810-794-11 | THERMISTOR, POSITIVE | |
| | | < CERAMIC FILTER/VIBRATOR > | |
| X1 | 1-795-410-21 | FILTER, CERAMIC | |
| X701 | 1-577-262-11 | VIBRATOR, CRYSTAL (75kHz) | |
| ********** | | | |
| | | MISCELLANEOUS | |
| | | ********** | |
| HP901 | 1-500-639-21 | HEAD, MAGNETIC (PLAYBACK) | |
| M901 | 1-763-166-14 | MOTOR (CAPSTAN/REEL) (WITH PULLEY) | |
| PM901 | 1-454-674-41 | SOLENOID, PLUNGER | |
| S901 | 1-771-888-11 | SWITCH, LEAF (TAPE DETECT, ATS) | |
| ********** | | | |
| | | ACCESSORIES | |
| | | ********** | |
| | 3-021-018-11 | LABEL, FRANCE | |
| | 3-235-078-24 | MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN) | |
| | 3-235-078-34 | MANUAL, INSTRUCTION (SPANISH, PORTUGUESE, ITALIAN) | |
| | 3-235-078-44 | MANUAL, INSTRUCTION (DUTCH, SWEDISH, FINNISH) | |
| | 3-235-078-54 | MANUAL, INSTRUCTION (ENGLISH, RUSSIAN, POLISH) | |
| | 3-235-078-64 | MANUAL, INSTRUCTION (CZECH, SLOVAKIAN, HUNGARIAN) | |
| | 8-954-008-93 | RECEIVER, EAR MDR-E808LP/C1 SET | |